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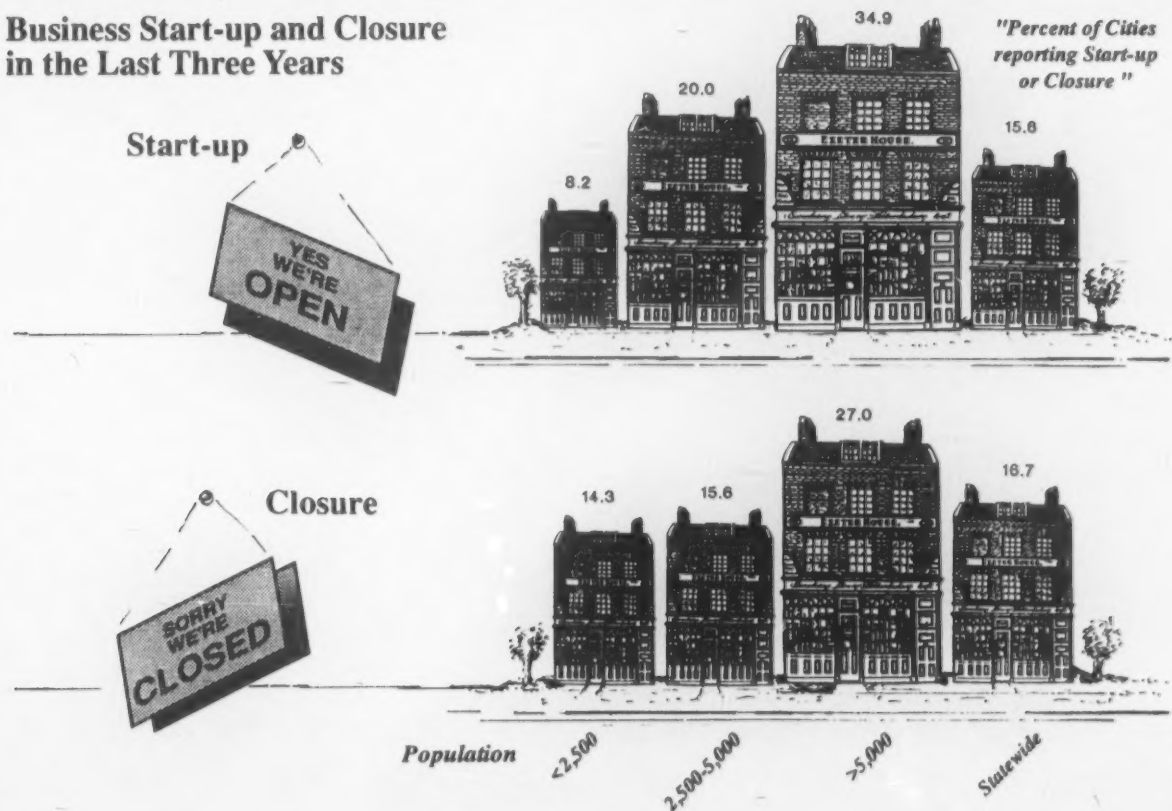
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Economic Conditions and Prospects in Small Illinois Cities

Rural areas have lagged behind their metropolitan counterparts in income and employment changes. Many explanations have been offered, including dependence on routine manufacturing jobs with relatively low pay, poor performance of the farm economy, and low prices of energy input important in many rural counties.¹ The lagging rural economies have caused state governments to initiate public policies to promote rural economic development.

While agriculture is important in rural economies, it certainly is not the largest employment source. Nationwide, for example, service industries constitute 65 percent of the nonmetropolitan employment base, followed by manufacturing at approximately 17 percent and agriculture with less than 10 percent in 1979. Rural communities provide a major employment source for rural residents, and their condition is of vital importance in understanding the future of rural areas.

Of the 1,279 municipalities in Illinois, 871 have a population smaller than 2,500, the Bureau of Census criterion for urban place designation. In the past, these communities primarily served farm families and local residents with a basic level of services. With the exodus of farm population and loss of city residents, business thresholds no longer could be met, and the economies have declined further. Many smaller communities no longer provide economic services. They merely represent low-cost housing for commuters to nearby centers.

Residents in some communities may be satisfied with this role. To preserve jobs and a tax base, others are struggling to stabilize their local economies and to attract or initiate industrial development.

The Illinois Institute for Rural Affairs conducted a mail survey of mayors in Illinois communities with population less than 25,000 to identify the perceptions of recent trends and to determine policies underway to improve the quality of life. The sample was subdivided into cities of less than 2,500, those with between 2,500 and 5,000 inhabitants, and communities of more than 5,000 and less than 25,000 inhabitants. Statewide, 299 usable responses were returned.

Economic Conditions

City responses about economic status differ markedly by size. Statewide, 37 percent reported that their city economy was growing. The highest (65 percent) positive response is found in cities with more than 5,000, and the smallest (26 percent) is in communities with fewer than 2,500 residents (Chart 1). At the other extreme, 26 percent of communities with fewer than 2,500 reported economic declines,

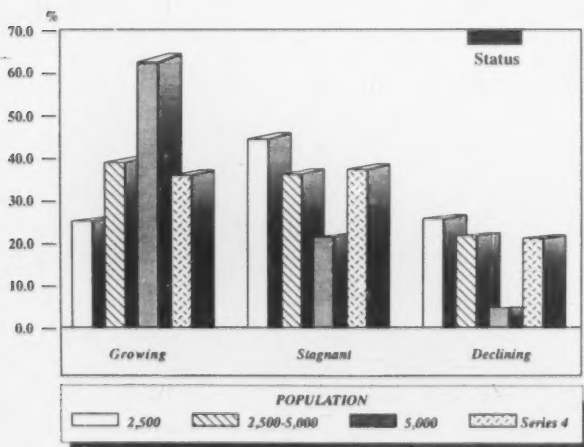
while only 6 percent of cities of more than 5,000 are in this category.

Chart 2 shows that business start-ups in the past three years are more prevalent in cities of more than 5,000 residents (35 percent) than in communities of less than 2,500 (8 percent). This finding supports a traditional view that small communities are less attractive to new business. The loss of major employers differs less among communities by size than one might have thought. On average, 27 percent of cities of more than 5,000 population reported the loss of a major employer, compared with 14 percent in communities of less than 2,500. The lower number of large manufacturing installations in small communities is one explanation.

Manufacturing is an important source of employment and income for small community residents in Illinois. Mayors estimated that an average of 35 percent of the residents of communities of less than 2,500 are employed in manufacturing, compared with an average of 30 percent in cities with over 5,000 inhabitants. Farm employment also was reported for 21 percent of residents in communities of less than 2,500, compared with 12 percent for cities of more than 5,000. Small towns, especially those with high-quality services, are bedroom communities, especially if they are close to metropolitan areas. Manufacturing and services are important employment sources for residents in these communities even though employment is in nearby large cities.

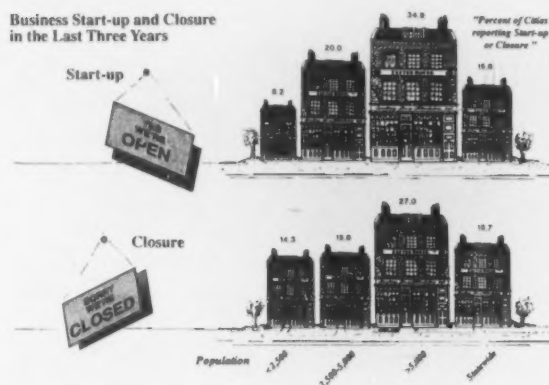
The economic condition of small cities in Illinois is difficult to characterize because of wide regional variations. Statewide, 57 percent of mayors reported retail conditions as either prosperous and expanding or at least reasonably stable, but the picture differs by city size (Chart 3). Of communities of less than 2,500, 50 percent reported stable or growing conditions, compared with 71 percent of cities of more than 5,000. This finding supports the view that retail establishments in small cities have been hard hit by population losses and employment declines.

Chart 1. Status of City Economy



Source: Survey of Municipal Officials, Illinois Institute for Rural Affairs, Western Illinois University, Fall 1987.

Chart 2. Business Start-up and Closure in the Last Three Years



Source: Survey of Municipal Officials, Illinois Institute for Rural Affairs, Western Illinois University, Fall 1987.

When queried about causes of decline in retail establishments, 44 percent reported that competition from neighboring large retail centers was the primary cause. Loss of manufacturing businesses in the area was the second most important factor according to 25 percent of the respondents. It is clear that the entry of major discount stores into cities as small as 15,000 has adversely affected retail stores in smaller surrounding communities. Specialized stores no longer can compete in price or selection. Increasingly, convenience stores are providing basic necessities in small communities, with other purchases being made in nearby larger centers. An unfortunate side-effect of this shift in purchasing patterns is the lost sales tax revenues needed to finance basic public services. This problem is not of recent origin; it has been a long-term trend that is not likely to be reversed.

The worst may be yet to come. The age of business owners in rural communities is such that retirement is on the horizon, and the financial returns from attempting to sell the business and retrain for alternative employment is not worth the cost. When current business owners reach retirement, many businesses will close permanently.

Economic Development Efforts

A majority (68 percent) of mayors responding in all city sizes are dissatisfied with the performance of their city's economy and employment base. This is not surprising. The fact that so many are dissatisfied suggests that they have not given up on finding solutions and may persist in development efforts.

The Illinois Department of Commerce and Community Affairs (DCCA) offers a wide variety of economic development programs through which cities can assist existing establishments, start businesses, or entice firms from other areas. DCCA also helps community leaders strengthen their ability to work with businesses on economic development projects through seminars and training programs. What often is missing, however, is a basic infrastructure within the

community to implement an economic development program. Economic development cannot be brought to a community, it must emerge from within.

Development efforts usually benefit from an economic development plan including an assessment of strengths and weaknesses with a method of directing scarce resources toward development objectives. A successful economic development program requires at least one person who serves as a spark to initiate the effort and to follow-up leads, whether these involve starting businesses from within or pursuing leads from outside the city. Follow-up is especially important and, often, is lacking.

Statewide, only one in five (21 percent) of the cities has an economic development plan in place. Development efforts may occur but not systematically. Communities of less than 2,500 were much less likely to have a plan (13 percent) than cities of between 5,000 and 25,000 (38 percent). A threshold size exists below which extensive economic development activities are difficult to maintain and may not even be worth the effort. Communities seeking to survive, however, must aggressively attempt to start businesses and encourage industries to continue, if not expand. These efforts require planning and coordination.

Small communities typically have limited management resources and experience. A part-time mayor, clerk, and council is the norm. When one considers the multitude of tasks confronting mayors and other public officials, it is easy to understand the relatively little time for economic development efforts.

It is not surprising that mayors in small communities are responsible for a majority of the economic development tasks. Responsibility in the mayor's office was reported by 24 percent of the cities reporting economic development efforts. This finding was most prevalent among the smallest communities (30 percent) and dwindled to 13 percent in cities of more than 5,000. In larger communities, an economic development committee (22 percent) or a city administrator (18 percent) replaced or assisted the mayor. Chambers of commerce were not reported by many cities as having primary responsibility for economic development. The sample sizes are small in several of these categories, however, and limit generalizations.

An alternative to maintaining an in-house staff is to contract with an economic development professional to provide the technical expertise missing in the community. This process is costly and may not bring results in the near future. Somewhat of a surprise, only 13 percent of the cities had hired an economic development consultant. Again, the smallest communities were less likely to have a consultant (7 percent) than cities of more than 5,000 (24 percent). The cutoff in size for hiring consultants seems to be 2,500 residents.

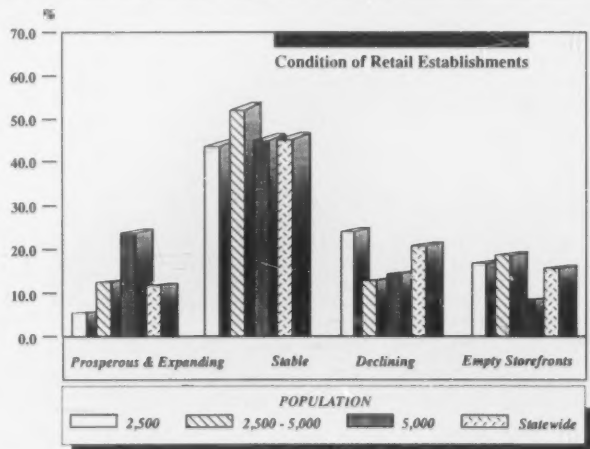
Nearly one in five cities (18 percent) reported no economic development efforts under way. As one might expect, the percentage was higher in the smallest communities (25 percent) than in cities of more than 5,000 (3 percent). Again, this is lack of staff, expertise, or even interest. The view may be that the economic base is insufficient to support long-term effects.

Development often takes several years before employment materializes. This long-term effort is frustrating and hard to maintain even in large cities.

Efforts by the Department of Commerce and Community Affairs are important but are apparently used less frequently in small cities. Statewide, 59 percent reported working with DCCA on development projects. The response increased with city size. The smallest communities were least likely to report activity (48 percent) and cities larger than 5,000 reported the most (83 percent).

Participation in DCCA programs by larger cities makes sense, given the greater resources available. Another view, however, is that small communities need the most technical assistance. When asked why they did not participate more in DCCA programs, the main response from the smallest communities was that they are unaware of the programs. This response is distinct from the claim that a DCCA representative is not available. The latter was not reported as a serious issue. One can only surmise that mailings about programs do not reach mayors in small communities or that they are too busy with daily activities to attend seminars or workshops.

Chart 3. Condition of Retail Establishments



Source: Survey of Municipal Officials, Illinois Institute for Rural Affairs, Western Illinois University, Fall 1987.

Practical Examples

Small cities have responded to local economic development challenges in many ways. Prophetstown residents (pop. 2,047) raised sufficient local capital to purchase a furniture-making business and relocate it in their town. Funds were raised by selling stock to residents, and the effort involved virtually no financial assistance from the federal or state government. The company management moved with the purchase and has remained in the community. Reportedly, the company is doing well, and the economic development agency is seeking another venture. This endeavor shows local initiative and a willingness to build on local resources. It provides an excellent model for other small communities.

Mason City residents (pop. 2,370) perceived a need for a retirement center and raised local capital to construct a 100-bed long-term care facility. That facility employs 50 part-time and full-time workers and is an important asset both for Mason City and the surrounding area. It demonstrates an ability to assess local needs, develop an initiative, and cooperate with state agencies on financing and regulation.

Mt. Sterling (pop. 2,232) was successful in attracting a more than 700-cell state prison. They advanced a major marketing effort by enlisting assistance from nearby larger cities and from local officials in neighboring counties. An effective campaign and cooperative effort regionwide resulted in a major boost to economic development. Efforts to assist local businesses to expand have also been effective. Mt. Sterling is a good example of mobilizing residents to pursue major state investments for economic development.

These communities are but three of many in Illinois that have assessed their future and worked together to create employment. Not all of them have used state resources, but they have been effective in making available programs work for them. A thread common in these communities is local leadership, as well as risk-taking by residents, to improve the future of their communities.

Responses to Fiscal Conditions

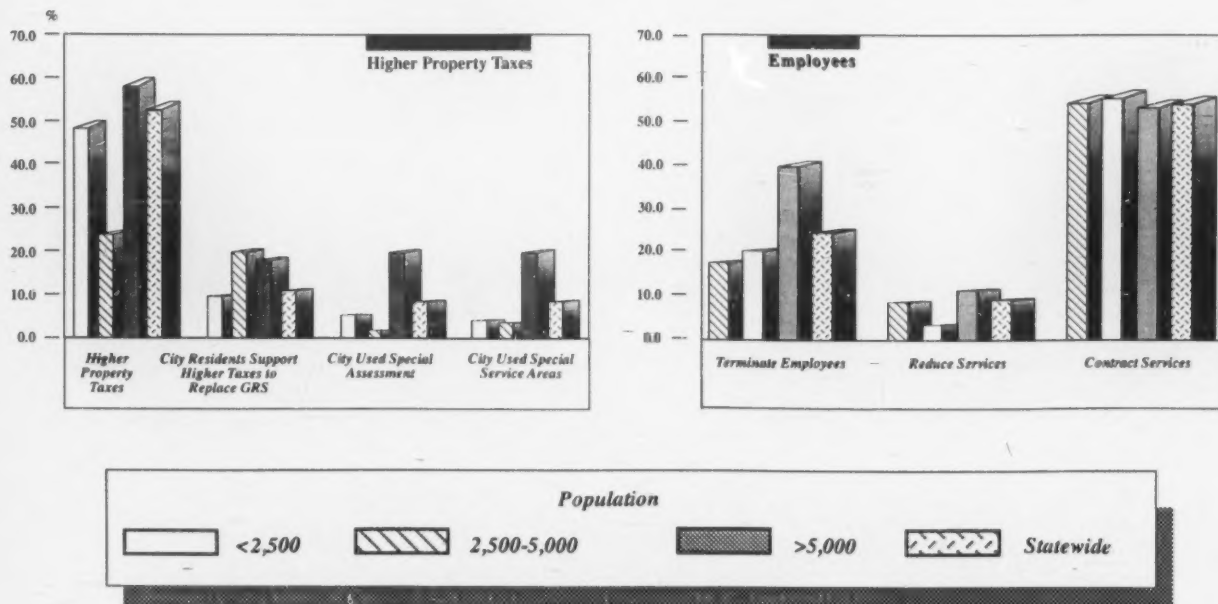
Small communities, because of difficulties in the post-recessionary recovery period, have had to take

corrective action. On average, one city in four (24 percent) reported furloughing or terminating employees (Chart 4). Surprisingly, a greater percentage (40 percent) of cities of more than 5,000 responded in this way than small communities (19 percent). One explanation is that there are fewer full-time employees in the smallest communities. Only 9 percent of the mayors reported discontinuing or significantly reducing services since 1984, and little variation exists in these responses by city size.

Contracting for services often is mentioned as a way to reduce costs of services in small communities. Part-time police protection, for instance, can be contracted with the county sheriff's office. Fire protection contracts (and mutual assistance pacts with larger cities) are common in rural areas. Refuse collection is commonly cited as a service to be provided at lower cost through the private sector. Contracts with private businesses are found in cities (55 percent) responding to the survey. Surprisingly, little difference is found by city size. Details were not provided on which services are contracted nor on the effectiveness of the arrangements. Further research is underway on contracting for police protection.

Beginning in 1987, cities lost Federal General Revenue sharing (GRS), a significant amount for some cities. In view of the fact that one-third of the cities reported assessed valuation declines since 1984, one might expect property tax rates to have increased in response to the lost revenues. In practice, 54 percent of the mayors responded that FY88 tax rates exceeded

Chart 4. Policy Responses to Fiscal Conditions



FY87 (Chart 4). However, only 13 percent reported that city residents would support higher property tax rates to replace lost GRS. This incongruity may pressure local officials to find ways to finance services with revenues other than property taxes. Fortunately, the temporary income tax increase and the increase in motor fuel tax came at an opportune time to assist in maintaining the infrastructure required for economic development.

Future of Local Finances

The future of local finances in many small communities is relatively uncertain. When asked about the prognosis for the next three years (FY88 is the base year), two-thirds (66 percent) reported adequate revenues for current and expected service requirements or that funds were adequate for current services but would not afford expected expansion. Only one in ten reported that a major tax increase is needed to maintain existing services. Additional services may require tax increases. One mayor in five expected to reduce services during the next three years. The questionnaire, of course, was prior to the 1989 income tax increase.

Concluding Observations

The survey of small Illinois cities prompts several broad observations. First, it is clear that many small communities apparently are not actively pursuing economic development or using available state resources. To economic development professionals working with officials in small communities, this is not news. Even so, it deserves additional attention. Seminars for rural local officials, support groups to assist and encourage local initiatives, and technical assistance are needed. Many efforts toward these ends are under way by the Cooperative Extension Service, Corridors of Opportunity programs, EDA University Center, and other agencies.

Second, it is reasonable to believe that retail establishments in communities surrounding a discount store or shopping center will continue to suffer. Small communities must recognize these trends and build on community strengths, such as historical or tourism potential, recreational opportunities, and other unique characteristics to attract additional traffic through the community.

Third, it is worth noting that some small communities, with no readily apparent special expertise, have been able to mobilize residents and businesses to invest in their local economies. These efforts involve strong leadership plus time and commitment to pursue economic development in an orderly fashion. Other community leaders can learn from these experiences and can use some of the techniques.

Fourth, it is recommended that officials in small communities examine the role of public services in their economic development efforts. Increasingly, capacity-building efforts will depend on institutions, such as schools, for talent and expertise. This has not been a major role for these institutions in the past, but they will be key in the future, both in the quality of education provided to the work force and in providing

community leadership on economic development and other issues.

Many small rural communities are not faring well during the current economic transformation. Managing change will require local leadership with technical assistance. With these efforts, a strong local commitment, and some good fortune, the future for small rural communities can improve. But it will take work.

Notes

1. A list of sources for information in this article is available from the author, on request.
2. *Issues and Concerns of Small City Officials in Illinois* is available from the Illinois Institute for Rural Affairs at Western Illinois University. This report is part of a larger study of townships, counties, fire protection districts, sheriffs offices, and school districts. Reports of these studies will be published at a later date.

Norman Walzer is Director of the Illinois Institute for Rural Affairs and a professor of economics at Western Illinois University.

On Some Macroeconomic Myths

In recent years I have begun my macroeconomic theory class each semester by picking students at random to answer questions about the US economy. I then have the whole class "vote" to select the best answers. The votes show, and often with large majorities, that the students are seriously misguided about the US economy. The same can be said for the educated layman—judging from my experiences at various business seminars. Many observers have lamented a decline in the quality of discussion about the economy by the media and by politicians, so perhaps this misinformation should not be surprising. But the misinformation and the vehemence with which it is sometimes held is discouraging and potentially dangerous for a democratic society.

Since you subscribe to the *Illinois Business Review* and have read this far, it is unlikely that you believe as many economic "myths" as my students. But, to be on the safe side, here is a sample of a baker's half dozen of the more important and most often believed myths. These seven myths are concerned with the roles of the business and government sectors of the economy and with perceptions of our recent economic performance. The facts are easily obtainable from government publications, *The Economic Report of the President* for past years and current issues of *The Survey of Current Business*, and, thus, are easily obtainable by anyone interested—including, I might note, members of the media and politicians.

Myth #1. Our current economic problems are caused by a slowdown in investment in plant and machinery in the 1970s and 1980s.

Fact #1. As a percentage of Gross National Product (GNP), investment in plant and equipment averaged 10.7 percent in the late 1940s, was 9.5 percent in 1960, 10.4 percent in 1970, and 11.8 percent in 1988. If we are underinvesting, we have been doing so for a very long time. Since there has been no fall off of investment, it seems hard to blame it for any recent difficulties, including keeping up with the Japanese or, previously, the Germans. It might be noted that these investment figures cannot be compared with those for other countries since US figures do not include government investment.

Myth #2. Our current economic problems are caused by the greed of businesses that make exorbitant profits.

Fact #2. Corporate after-tax profits as a percentage of GNP was 5.3 percent in 1960, 4.1 percent in 1970, 5.6 percent in 1980, and 3.3 percent in 1988. Before-tax profits follow a similar pattern. Because corporate profits are quite cyclical, year-to-year variations are substantial. Even so, it is hard to believe that such small

profit figures create a major problem. It might be noted that my students grossly overestimate profits as a percentage of selling prices. They apparently believe that a product they buy for \$10 typically results in a net profit of about \$3!

Myth #3. Our current economic problems are caused by ever-increasing taxation.

Fact #3. Other than contributions to social security, total taxes collected by federal, state, and local governments as a percentage of GNP were 23.0 percent in 1960, 24.1 percent in 1970, 23.1 percent in 1980, and 23.0 percent in 1988. However, both social security contributions and benefits have risen. Social security contributions increased from 4.2 percent in 1960 to 9.1 percent in 1988, and benefits rose from 2.2 percent in 1960 to 7.5 percent in 1988. Broader coverage and increased individual benefits added both to the contributions and benefits figures, and an aging population also added to the increased benefits figure. It might be noted that the supposed crisis in social security is difficult to identify since contributions have continually been substantially above benefits.

Myth #4. Our current economic problems are caused by exorbitant and increasing welfare payments.

Fact #4. Welfare payments of all types by all levels of government as a percentage of GNP were 2.1 percent in 1960, 2.9 percent in 1970, 4.1 percent in 1980, and 3.5 percent in 1988. Although generally increasing, it is hard to believe that these percentages can create major problems for the economy. Furthermore, much of the increase is caused by higher unemployment levels. In short, increased benefits in the 1980s are not of the type that are the typical concern of those worried about increasing welfare payments. My students put welfare payments at around 20 percent of GNP.

Myth #5. Our current economic problems are caused by excessive federal government spending in areas other than defense.

Fact #5. Federal nondefense spending on currently produced goods and services as a percentage of GNP were 1.8 percent in 1960, 2.2 percent in 1970, 2.4 percent in 1980, and 1.7 percent in 1988. An increase in government spending did occur, however, at the state and local level, rising from 8.9 percent in 1960 to 12.2 percent in 1988. If you are worried about government bureaucracy, Washington seems hardly the place to look! By the way, my students also put this figure at around 20 percent.

Myth #6. Our current economic problems are caused by exorbitant and increasing expenditures on national defense.

Fact #6. National defence spending as a percentage of GNP was 8.8 percent in 1960, 7.6 percent in 1970, 5.2 percent in 1980, and 5.4 percent in 1988. Not being an expert on national defense matters, I cannot really comment on whether these percentages are exorbitant or not, but they have clearly fallen rather than increased.

And now for a myth concerning our collective memory.

Myth #7. The 1970s were a decade of miserable economic performance, but the 1980s have shown dramatic improvement.

Fact #7. Consider the three measures of economic performance most often used: real growth, inflation, and unemployment. For the 1970s, the average real growth rate of GNP was 2.75 percent, the average inflation rate was 7.25 percent, and the average unemployment rate was 6.00 percent. For the 1980s, the real growth rate was 2.50 percent, the inflation rate was 5.00 percent, and the unemployment rate was 7.50 percent. These differences are hardly worth writing home about!

At the very least, what you have learned should enable you to be a "myth buster" and to increase your chances of becoming the most unpopular guest at the fewer and fewer parties to which you are invited. You may even be moved toward sympathy for the lot of the typical economist.

Case M. Sprenkle is a professor of economics at the University of Illinois.

Illinois Then and Now: No Sign of Recession

The US economy over the past months and even years has defied all the experts. Despite numerous tollings of its death knell, the economy has refused to die. In fact, it seems that the economy has emerged from each adversity with renewed strength and has held together under circumstances that during other periods would have sent it headlong into recession.

The economy in which we live today is remarkably resilient, much more so than a decade ago. Some credit this increased resiliency to improved inventory management by firms, higher productivity of the marginal worker, or successful restructuring in the American manufacturing sector. But whatever the reason, real growth has persevered through shock after shock over the past five years:

- 1985 saw a record appreciation of the dollar against major trading-nation currencies, yet the domestic manufacturing base was not decimated by foreign competition, as had been widely feared.
- 1987 brought the Black Monday stock market crash, rivaled only by the Black Friday crash of 1929. Some predicted a repeat of history, that is, that the nation and world would once again plunge into deep recession.
- 1988 was marked by the most severe drought in half a century. Not since the Dustbowl years of the 1930s had so little rain fallen in America's grain-producing regions. The drought, compounded by the savings and loan crisis, stubborn trade imbalances, and a mounting federal debt, combined with the tight monetary policy implemented to thwart inflationary pressures all signaled an end to the period of growth that had endured since 1983.
- 1989 transferred the problems of 1988 to a new president. Petroleum prices resurged, inflationary expectations soared, the stock market experienced a mini-crash, and the threat of a too restrictive monetary policy seemed to place the economy at the crossroads of recession and stagflation.

In light of these and other would-be harbingers of recession, why is the United States not suffering from high unemployment and accelerating inflation as it did during the late 1970s and early 1980s? There are many possible reasons; but if the economy can be compared to an athlete, it can be said without a doubt that it was (and is) in much better shape to weather adversity and to endure than it was a decade ago.

In the remainder of this article, I use the state of Illinois as a microcosm to illustrate this point. In the years preceding the last recession, Illinois was an economic basket-case, experiencing negative growth

rates, high unemployment, and even a net population loss. Ten years later, the state economy is strong and growing, in spite of the negative economic climate of the past five years. In short, there is a world of difference between Illinois then and Illinois now. Illinois shows no sign of recession.

Illinois Then

The Illinois economy in the years prior to and during the last recession was in a shambles. The state's paucity performance through this period is clearly indicated in the top portion of Table 1. Gross state product (GSP) declined at an accelerating rate between 1976 and 1980, with no real recovery until 1984. Illinois experienced negative real personal income growth in 1980 and 1982, and the value of contracts for future construction fell precipitously in the period from 1977 to 1982. Unemployment rose from a low of 5.5 percent in 1979 to a peak level of 11.4 percent in 1983, and in 1979 the state even suffered a net loss of population due in part to heavy out-migration.

Illinois Now

Few of the maladies that afflicted Illinois during the late 1970s and early 1980s are in evidence today. Years subsequent to 1982 show no negative growth in any of the series presented in Table 1, with the exception of a minor fall in the value of future construction contracts in 1988.

During the first quarter of 1989, the state's economy boasted a number of bright spots in a broad range of categories.

- The state is doing its part to bring down the nation's trade deficit. The value of Illinois exports increased by 29.3 percent while imports grew by only 15.4 percent.

- Illinois farmers appear to have gained a net financial benefit from the recent drought. Cash receipts from farm marketing were up 4.9 percent through November of 1988 over the same period the previous year. This reflects large increases in the price of existing supplies of grains.
- Near record levels for the value of contracts for future construction were recorded in 1988 with a total value in excess of \$10 billion.
- Average state labor force for February was a record 5,976,000. Unemployment during the month reached a 9 1/2 year low at 5.2 percent.
- Retail sales also grew at a healthy pace, rising 4.6 percent in 1988 over the previous year.
- Expectations about the future also remained bright. The *Purchasing Manager's Survey for Chicago* remained positive for the 39th consecutive month, indicating that business activity in general was expanding.

Chart 1 illustrates the difference a decade makes. Gross State Product has grown at a much healthier pace since the last recession (1984-1988) than in the period preceding it (1976-1980). Based on a comparison between the these two five-year periods, there is little evidence to support the notion of a recession lurking around the corner.

Illinois: Land of Disparity and Despair

Illinois has come a long way since the recession in the first part of this decade. As indicated, its unemployment rate is nearing a 10-year low. Unfortunately, economic growth in recent years has not reached everyone. Table 2 shows that pockets of extremely high unemployment persist in the state. In fact, a surprisingly large number of counties have experienced only marginal gains in employment during

Table 1. Illinois Vital Signs^a (percentage change from previous year in constant 1982 dollars)

Year	GSP	Total — Personal Income	Value of Future Construction Contracts	Unemployment Rate	Population
1976	3.6	NA	95.5	6.5	0.5
1977	3.4	3.2	-35.4	6.2	0.4
1978	3.0	3.3	15.7	6.0	0.2
1979	0.0	0.7	-11.3	5.5	-0.1
1980	-4.6	-2.9	-30.7	8.3	0.2
1981	0.2	1.2	-17.6	8.5	0.3
1982	-3.8	-2.1	-5.3	11.3	0.0
1983	0.7	0.1	20.5	11.4	0.1
1984	7.9	5.0	16.0	9.1	0.3
1985	2.8	2.0	2.7	9.0	0.1
1986	3.0	2.9	22.7	8.1	0.1
1987	4.6	1.7	8.1	7.4	0.2
1988 ^p	3.8	NA	-2.5	6.8	0.1
1989 ^b	2.4	NA	NA	6.5	0.1

Source: *Illinois Bi-Monthly Economic Data Summary*: Illinois Department of Commerce and Community Affairs and 1989 *Illinois Statistical Abstract*: Bureau of Economic and Business Research at the University of Illinois.

^aGross State Product is the counterpart of Gross Domestic Product and is regarded as the most comprehensive measure of production for a state.

^bEstimates.

P = Preliminary.

the economic recovery of the past seven years. Note on the one hand that in every year at least one county experiences unemployment in excess of 20 percent. Counties such as DuPage and Champaign, on the other hand, have unemployment rates that are consistently below the state and national averages.

The persistence of high unemployment in southern Illinois throughout the longest sustained period of economic expansion in the post-war United States suggests that the Southern Illinois economy has been unable to adapt to today's dynamic economic climate.

Chronic Problems in Southern Illinois

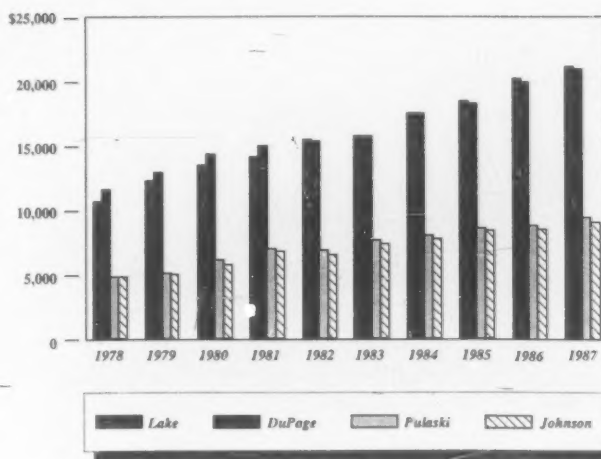
Counties where unemployment remains high and per capita income low possess a common denominator—all are located in the extreme southern region of the state. Because these counties are not very populous, their statistics do not have a great deal of impact on the aggregate state figures for income and employment. For example, the population of Johnson and Pulaski counties, the two counties with the most chronic unemployment, are, respectively, 11,100 and 8,400 for 1987. By comparison, DuPage county, has nearly 3/4 of a million inhabitants, and incorporates many well-to-do Chicago suburbs.

Typically, low-unemployment counties incorporate affluent Chicago suburbs (for example, DuPage) or benefit from the presence of a major state or federal employer (for example, Champaign).¹

Chart 2 graphically depicts the regional disparity in per capita personal income within Illinois. It illustrates the point that the gap between per capita income in well-to-do counties (for example, Lake and DuPage) and poor counties (for example, Johnson and Pulaski) historically has been large and continues to grow.

Equally interesting is a comparison of the per capita personal income figures for Illinois' poorest and

Chart 2. Per Capita Personal Income
(selected Illinois counties)



wealthiest counties with the national norm. Per capita personal income in Lake county, for example, in 1982 was 133 percent of the national average, rising to a high of 139 percent in 1986. Johnson county, by comparison, had a high of 60 percent in 1982, and actually saw a fall to 56 percent of the national norm by 1987.

Pockets of poverty and high unemployment are securely lodged in Illinois, as in any state. Generally, however, the state is performing quite well at the aggregate level and far better than it did a decade ago.

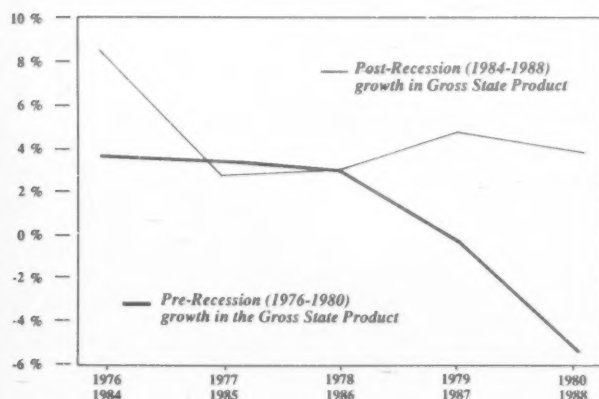
Concluding Remarks

The current strength of the Illinois economy yields benefits extending far beyond its borders. Certainly, high rates of growth in Gross State Product contribute directly to increases in Gross Domestic Product as its expanding export sector helps to improve the nation's poor trade balance, yet these direct influences alone cannot explain the success of the American economy in aggregate. It was (and continues to be) the ability of Illinois and other state economies to adjust to the fundamentally changed economic climate that emerged following the last recession that goes a long way in explaining the resiliency of the US economy today.

Notes

1. The state capital, Springfield, is located in Sangamon County, while the University of Illinois and Chanute Air Force Base are found in Champaign County.

Chart 1. Pre-Recession vs. Post-Recession Growth in Gross State Product
(percentage change from previous year)



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Table 2. Counties with Highest and Lowest Unemployment Rates in Illinois

1984				Highest Rate	Lowest Rate	1985				Highest Rate	Lowest Rate
1	Alexander	25.1	Lake	5.8	Alexander	24.7	Champaign	5.5			
2	Calhoun	19.6	Champaign	6.1	Pulaski	22.9	DuPage	5.8			
3	Hamilton	17.1	DuPage	6.1	Calhoun	21.1	Lake	6.0			
4	Johnson	17.1	DeKalb	6.7	Hamilton	19.5	McLean	6.3			
5	Williamson	16.7	Kendall	6.9	Richland	17.8	Sangamon	6.7			
6	Hardin	16.5	McHenry	7.1	Williamson	17.6	Menard	6.9			
7	Pope	16.4	Sangamon	7.1	Lawrence	17.3	DeKalb	7.2			
8	Franklin	16.3	Douglas	7.2	Wayne	16.9	Kendall	7.4			
9	Wayne	15.4	Stephenson	7.3	Gallatin	16.7	Ford	7.8			
10	Massac	15.3	Carroll	7.7	White	16.6	Moultrie	7.8			
1986				Highest Rate	Lowest Rate	1987				Highest Rate	Lowest Rate
1	Lawrence	20.2	DuPage	4.5	Hamilton	20.8	DuPage	4.1			
2	Alexander	20.1	Champaign	4.6	Alexander	18.3	Champaign	4.5			
3	Hamilton	20.0	Lake	5.4	Perry	17.4	Lake	4.6			
4	Calhoun	19.2	McLean	5.5	Franklin	17.3	McLean	4.7			
5	Richland	18.6	Sangamon	5.6	Pulaski	17.1	DeKalb	4.9			
6	Pulaski	18.1	McHenry	6.1	Gallatin	16.7	Sangamon	5.2			
7	White	18.1	DeKalb	6.2	Lawrence	16.5	Kendall	5.5			
8	Gallatin	17.5	Woodford	6.4	White	15.6	McHenry	5.5			
9	Wayne	17.5	Kendall	6.6	Jefferson	15.5	Woodford	5.8			
10	Fayette	16.7	Livingston	6.8	Wayne	15.5	Livingston	6.0			
1988				Highest Rate	Lowest Rate						
1	Hamilton	22.3	DuPage	3.8							
2	Alexander	18.4	Champaign	4.2							
3	Pulaski	18.0	Lake	4.3							
4	Perry	16.8	DeKalb	4.4							
5	Gallatin	16.7	Kendall	4.6							
6	Franklin	15.6	Woodford	4.7							
7	White	14.6	McHenry	4.8							
8	Carroll	14.5	McLean	5.0							
9	Johnson	14.5	Kane	5.4							
10	Union	14.2	Livingston	6.0							

Source: *Illinois Bi-Monthly Economic Data Summary*: Illinois Department of Commerce and Community Affairs and 1989 *Illinois Statistical Abstract*: Bureau of Economic and Business Research at the University of Illinois.

Table 3. Highest and Lowest Per Capita Personal Income (Illinois, by County)

		Highest					
County	1984 Income	County	1985 Income	County	1986 Income	County	1987 Income
1 Lake	\$17,773	Lake	\$19,028	Lake	\$20,265	Lake	\$21,432
2 DuPage	17,742	DuPage	18,811	DuPage	20,024	DuPage	21,235
3 McHenry	14,867	McHenry	15,760	McHenry	16,673	McHenry	17,866
4 Cook	14,772	Cook	15,511	Cook	16,416	Cook	17,236
5 Kendall	14,293	Grundy	15,075	Grundy	15,366	Kendall	16,935
6 Kane	14,156	Kane	15,016	Kane	15,329	Kane	16,782
7 Monroe	13,967	Stark	14,891	Monroe	15,106	Grundy	16,729
8 Grundy	13,927	DeWitt	14,883	Sangamon	15,048	Monroe	16,551
9 Putnam	13,705	Kendall	14,746	Kendall	15,007	Sangamon	16,262
10 Pratt	13,644	Monroe	14,581	Stark	14,986	Stark	15,862
		Lowest					
County	1984 Income	County	1985 Income	County	1986 Income	County	1987 Income
1 Pope	\$7,844	Johnson	\$ 7,740	Johnson	\$ 8,053	Johnson	\$ 8,763
2 Johnson	7,903	Pulaski	8,382	Pulaski	8,360	Pulaski	8,931
3 Pulaski	8,099	Pope	8,404	Pope	8,564	Hardin	9,402
4 Hardin	8,208	Hardin	8,605	Hardin	8,829	Alexander	9,419
5 Alexander	8,473	Alexander	8,859	Alexander	9,476	Pope	9,422
6 Fayette	9,387	Hamilton	9,531	Hamilton	9,990	Hamilton	10,789
7 Jackson	9,556	Fayette	9,728	Fayette	10,150	Fayette	10,809
8 Hamilton	9,602	Jackson	9,758	Cumberland	10,321	McDonough	10,971
9 McDonough	9,666	McDonough	10,102	Jackson	10,506	Greene	11,104
10 Cumberland	9,705	Cumberland	10,130	Massac	10,643	Massac	11,153

Source: *Illinois Bi-Monthly Economic Data Summary*: Illinois Department of Commerce and Community Affairs and 1989 *Illinois Statistical Abstract*: Bureau of Economic and Business Research at the University of Illinois.

Fiscal Impact on Illinois of Military Base Closures

On 29 December 1988, a commission of the Secretary of Defense made public a list of 86 military installations it had earmarked for realignment or closure. Among these installations were two Illinois facilities, Chanute Technical Training Center (formerly Chanute Air Force Base), located in Rantoul, and Fort Sheridan Army Garrison in Highwood.

A great deal of attention has been focused on the economic impact of closure on the affected communities. One study of Rantoul by University of Illinois researchers Dan Spiegel and Geoffrey Hewings cites numerous effects on the local community, including decreases in property value, business volume, population, and the village's tax base. In the June *Illinois Business Review*,¹ the severity of the impact of closure was challenged. It was noted the effects of closure may be substantially mitigated by the area's favorable business climate and affordable housing, factors that bode well for Rantoul's prospects for the future. Less attention has been focused on the local economic impact of the Fort Sheridan closure because its location on high-priced lakefront property lends itself easily to alternative uses.

This article focuses on the effects of the closure of both Chanute and Fort Sheridan in terms of their impact on the State of Illinois. As a direct result of the closures, the state can expect declines in virtually every source of tax revenue. The bases are responsible for hundreds of millions of dollars of federal government expenditure within the state; still larger sums are expended indirectly through the multiplier process;² these too will be lost. Moreover, expenditures can also be expected to increase as a consequence of increases in unemployment and welfare programs.

Illinois: A History of Regional Military Dependence

Illinois has a well-diversified economic base. Hence, the state is not highly dependent on the flow of funds from military bases. Between 1979 and 1986, the state's share of nonfarm personal income derived from military sources increased 23.3 percent, as shown in Chart 1. Even so, despite the rapid increase in income derived from military sources, the overall share of military income in the state has remained relatively small, fluctuating in the range of four-tenths of one percent to six-tenths of one percent annually. But this observation is deceiving because most military influence in the state is concentrated in only a few counties. Table 1 documents this observation for the decade ending in 1987. Of Illinois' 102 counties, just

two, Champaign and Lake counties, accrued as much as 62.7 percent of Illinois total military earnings (see Chart 2).

During this same period, almost 50 percent of all military employment in Illinois was concentrated in these same two counties. An increasing dependence on federal civilian government employment is also in evidence. Employment in that sector has risen 17.7 percent since 1978 in Lake county and 5.5 percent in the state, while falling in Champaign county.

At a glance, one-half of one percent does not appear to be a large amount of income derived from any single source. Illinois Gross State Product (GSP) in 1988 was over \$241.3 billion and is the nation's fourth largest economy by this measure. A one-half of one percent change in this amount is equal to \$1.2 billion. It is apparent why state legislators are reluctant to see the military presence in Illinois be diminished.

How the Base Closures Will Affect Tax Receipts

This section describes the revenue and expenditure categories that will contribute to the state's losses, if the closures proceed.³ Table 2 and Chart 3 show the major sources of revenue and expenditure in the state. Table 3 and Chart 4 detail the changes in revenue and expenditure that can be expected over the period from fiscal year 1989 to fiscal year 1994.

In addition to decreased revenue and increased expenditure, one needs to consider the potential cost of attracting firms to replace the military employment in the Rantoul area. These costs are extremely high by historical standards. For example, Illinois offered Sears, Roebuck and Company an incentive package worth nearly \$30,000 per job during the summer of 1989. Several years ago, Diamond-Star (Mitsubishi/Chrysler) received incentives worth \$40,793 per job. The record subsidy is held by Kentucky, which attracted a Honda plant after offering a \$108,333 per job incentive. A \$30,000 per job incentive to replace direct and indirect employment at Chanute alone could cost nearly \$65 million.

It is important to note that the above are not net costs. They are estimates of the immediate costs to the state to attract new industries. Governments would not undertake such expenditures unless they expected to recoup them at some point in the future.

The single largest area in which revenues can be expected to slacken is that of the personal income tax. This conclusion might seem unusual since military personnel do not pay the state income tax. Even so, a substantial portion of a serviceman's income is spent in the local economy. Fiscal Year 1988 estimates of this proportion for Chanute are 47.2 percent for those living on base and 56.4 percent for off-base personnel. With the military payroll at \$87 million dollars for FY88, about \$42.5 million reached the local (state) economy for the Chanute case alone. Because these dollars become income in the local economy for civilians supplying goods and services to servicemen, taxes are paid on some proportion of them.

Civilians spend an estimated 80.6 percent of their income locally. During FY88, the civilian payroll was \$36.9 million, and income taxes are paid on this

Chart 1. Military Earnings in Illinois as a Percentage of Nonfarm Earnings



Chart 2. Military Earnings in Champaign and Lake Counties as a Percentage of Illinois Total

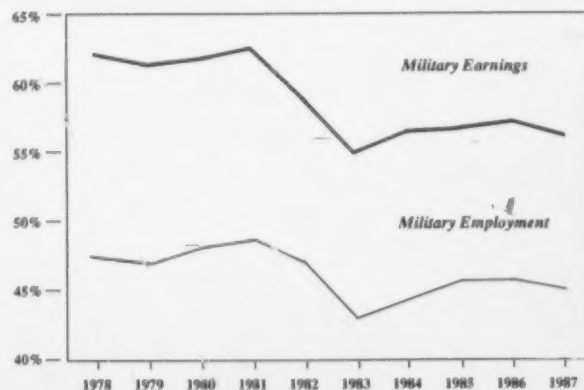


Table 1. Percentage of Total Illinois Military Earnings and Employment Concentrated in Champaign and Lake Counties

Year	Military Earnings	Military Employment
1978	62.4%	47.5%
1979	61.7	47.1
1980	62.0	48.2
1981	62.7	48.6
1982	59.4	47.1
1983	55.7	43.4
1984	57.1	44.7
1985	57.3	45.8
1986	57.7	45.9
1987	56.8	45.2

Source: 1989 Illinois Statistical Abstract, Bureau of Economic and Business Research, University of Illinois.

amount. These amounts, plus others derived through construction, service, and supply contracts awarded locally by the Defense Department, also translate into taxable income for the state. \$65 million of the estimated \$78 million (83 percent) in lost income tax revenue are due to these indirect effects.

Why Most Tax Losses Are Not the Direct Result of Closure

The average dollar changes hands many times within the local economy. For this reason, the number of people who depend on military expenditure for their livelihood is substantially larger than the number of people who actually draw a military paycheck. In the case of Chanute, for example, the Air Force estimates that in the Chanute economic impact region alone, 3,991 jobs were supported by FY88 operation expenditures.⁴

The Air Force estimate for the income multiplier in Rantoul and surrounding area is 2.5122 on total expenditures of \$135.6 million for FY88. Thus, the total effect of Chanute alone on the impact region is a staggering \$340.7 million cash flow supporting 3,991 jobs. Using an analogous line of reasoning, it is obvious that the estimated losses of income tax revenue are principally due to indirect effects and not to initial payroll expenditures by the military. This number is pushed substantially upward by the inclusion of Fort Sheridan. It will suffice to say that the state will sorely miss the opportunity to tax these dollars. In addition, estimates need to be increased substantially in the event that the two-year temporary increase in the personal income tax rate from 2.5 percent to 3.0 percent is made permanent, as is anticipated.

It is expected that the \$48.5 million state sales tax will be the revenue category experiencing the second largest decline. All items purchased anywhere in the state, inside and outside of the impact zones, whether purchased by military or civilian personnel, are subject to the sales tax. Sales tax losses resulting from the loss in sales of durable goods (appliances, for example) and automobiles will be substantial. Tax receipts from items such as motor fuel, cigarettes, and liquor will also decline. Losses due to the Fort Sheridan closure are likely to be larger than for those of Chanute, however, due to a higher percentage of personnel living off base and a higher average income.

To a lesser degree, losses are also expected for the corporate income tax, as the local service industry declines, and for the corporate replacement tax. Miscellaneous losses will occur in the form of lost lottery revenues and automobile licence and registration fees.

How the Base Closures Will Affect Government Expenditures

Increases in government expenditure are much more difficult to gauge since so much depends on the future actions of the General Assembly. Some areas, such as unemployment compensation, welfare, and medicaid, are likely to increase substantially if there is a sustained increase in the unemployment rate. Whether or not there is such a sustained increase depends upon two

Table 2. Important Revenue and Appropriation Categories for the State of Illinois Fiscal Year 1990 (millions of dollars)

Source	Revenue Collected	Expenditure Categories	Appropriation
Sales tax	\$ 3,976	Education	\$ 5,899
Income tax	4,338	Transportation	4,151
Federal aid	3,976	Public aid	3,714
Road taxes & fees	1,446	Health & human services	2,622
Bond proceeds	361	Public protection and justice	1,311
Lottery	904	Environment & natural resources	1,392
All other sources	3,072	Other	3,059
TOTAL	\$18,073		\$21,848

Source: Illinois State Budget: Fiscal Year 1990, Office of the Governor.

factors: one factor relates to the rate at which replacement firms enter the affected communities; and the second factor turns on the extent to which the nonappropriated fund civilians and others who are either directly or indirectly dependent on military expenditure remain in the community (especially Rantoul).

Because of substantial declines in the number of students enrolled at area schools, expenditures on state school aid will actually fall by an estimated \$7.34 million.

It is possible that the single largest cost the state will need to absorb is a \$64.6 million charge from retraining and incentive costs associated with the Chanute closure. If, as discussed earlier, the state attempts to attract industry into the Rantoul area to replace the nearly 2,400 civilian military positions, the incentive costs may be extremely high.⁵

Table 3. Estimated Revenue Losses and Expenditure Increases to the State of Illinois Due to Base Closures (millions of 1989 dollars)^a

Revenue Losses		Expenditure Increases	
Personal income tax	\$78.22	Additional state tax	\$ -2.74
Direct	13.02	disbursements to	
Indirect	65.20	Champaign & Lake	
Sales tax lost	48.54	Counties	
Corporate income tax	2.65	State school aid	-7.34
Corporate replacement tax	1.25	Unemployment compensation	1.94
Other losses	5.77	Medicaid & welfare	46.53
		Retraining programs and	64.65
		incentives to attract	
		new businesses ¹	
Total revenue loss	\$136.43	Total expenditure increase	\$103.04
Total losses	\$239.47		

^aLosses shown are the net present cash value as of 1 October 1989 for the period FY89 to FY94. The discount factor used is the actual historical real rate of interest on ten-year US Treasury bills for the period 1960 to July 1989.

The Total Loss: \$240 Million

The sum of all estimated changes in revenues and expenditures, including job-replacement costs is \$240 million. It represents the net present cash value of all losses incurred during the period beginning with FY89 and ending in FY94 in 1989 dollars.⁶

The analysis was not extended beyond that point. What the future holds for what once was Chanute AFB and what will remain of Fort Sheridan over a distant time horizon is unclear. For example, if Chanute were to remain completely vacant, as might occur with a protracted environmental clean-up, then still larger losses would accrue to the state beginning with FY95. Then again, if new jobs are created, then the state can expect to begin to recoup some of the losses incurred during the closure phase.

Note that from the point of view of the state, only new jobs will help to increase tax revenues. Transferring a few thousand jobs from Chicago to Rantoul makes absolutely no difference in Springfield. The state must seek businesses from other states or foreign investment. Another possibility is to promote new, small businesses.

Chart 3. Illinois Revenues and Appropriations (FY90)

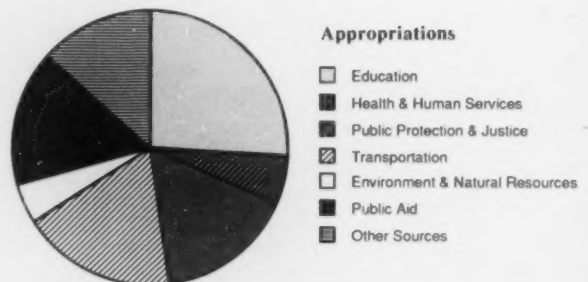
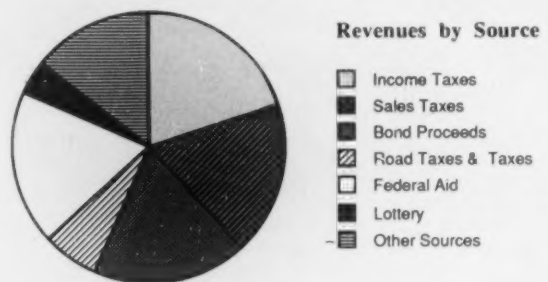
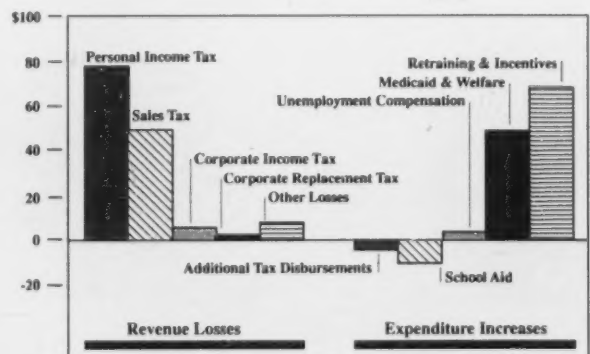


Chart 4. Estimated Revenue Losses and Expenditure Increases (millions of 1989 dollars)



Conclusion

\$240 million dollars is a substantial loss. Whether this amount is deemed significant in terms of the state's total tax resources or whether it is likely to cause "damage" to the state is up to a federal judge to decide.

Notes

1. A list of sources used in this article are available from the author on request.
2. I briefly describe the multiplier process here. If, on average people spend 75 percent of their income in the state economy, then the multiplier is calculated as $1/(1 - .75) = 4$. This means that for each \$1 of expenditures I make in the state, a total of \$4 of income are created economy-wide (see my June 1989 article for more detail).
3. During the summer of 1989, Professor Walter McMahon and I were commissioned by the Office of the Attorney General of the State of Illinois to analyze the economic effects of the closures of Fort Sheridan and Chanute AFB on the State of Illinois. At this writing (early November 1989), a federal judge is determining the state's standing in a lawsuit filed by

Illinois Attorney General Neil Hardigan to block the closure. Our report is an element of the state's defense, and therefore no details may be revealed at the present time.

4. This figure does not include the military personnel themselves. The estimate for total number of jobs supported in the entire United States is 5,823.

5. Multiplying the number of jobs lost by the incentive cost would yield a deceptively large estimate. Our analysis assumes the loss of jobs and, thus, replacement costs to be streamed out over a five-year period. These costs are then discounted back to the present, producing a smaller figure than a casual inspection might suggest.

6. Presenting losses in constant 1989 dollars means that estimates were not adjusted for inflation. Had we done so, total losses would have been higher.

Robert P. Hartwig is a Ph.D. student in economics at the University of Illinois and a research assistant in the Bureau of Economic and Business Research.

New Publications Available from the Bureau

1990 Illinois Economic Outlook

The *1990 Illinois Economic Outlook*, the latest in the series of *Outlooks* by the Bureau of Economic and Business Research, will be available in mid-December. This year's *Outlook* examines trends in Illinois agriculture, financial institutions, education, energy, personal income, health care, real estate, and employment. It also looks at Illinois' place in the Great Lakes economy, the growth of small businesses in the state, and changes in state revenues and expenditures for the coming year. The publication will be \$5.00 per copy.

1989 Illinois Statistical Abstract

The *1989 Illinois Statistical Abstract* is currently available from the Bureau of Economic and Business Research. The *Abstract* is the most comprehensive source of Illinois data available, providing over 350 tables for the following areas:

Personal Income & Nonfarm Earnings
Farm Income
Transfer Payments
Employment: By Industry
Labor Force Statistics
Weekly Earnings & Hours
Gross State Product
Census of Manufactures
Census of Services
Census of Population & Housing
Building Permits
Consumer Price Indexes & Inflation Rates
Commercial Banking Statistics
General Revenue Fund Tax Receipts
Estimated Retail Sales

The *Abstract* is available in paperback (615 pages) for \$27.50 and on diskette (Lotus format) for \$40.00 (3.5" and 5.25" disks available).

Further information and copies of the *Outlook* and *Abstract* are available from the Bureau of Economic and Business Research, 428 Commerce West, 1206 S. Sixth Street, Champaign, Illinois 61820.

New Decade, New Look *for Illinois Business Review*

Beginning in the new year, the *Illinois Business Review* will inaugurate a new look and a new publication schedule. The design by College of Commerce staff artist Barbara Burch will feature two colors and a three column format for a more interesting and attractive presentation of our usual informative articles and statistics.

The changes will also extend to a quarterly rather than bimonthly publication schedule to fit more closely the issuance of data from government agencies used within our statistical models. The first issue of the new year will be April 1990.

The *Review* is taking this opportunity to update our subscription lists as well. On the back page of this issue you will find a subscription form to be filled out and returned to the Bureau of Economic and Business Research. If you wish to continue to receive the *Review*, please complete and return the form to the Bureau by 1 March 1989. *Unless we receive the subscription form, your name will be removed from the mailing list.*

New Format

With this issue of the *Illinois Business Review* we begin a new format for our statistics pages. Emphasis will be placed on forecasts for the Illinois economy generated by the Illinois Econometric Model. The model has been developed by the Bureau of Economic and Business Research at the University of Illinois. Sectoral forecasts for gross state product, personal income, and employment will be included in each issue. Special forecasts for series such as building permits, retail sales, and price indexes are under development and will be presented at regular intervals.

Gross State Product and Personal Income

Growth rates for both Gross State Product (GSP) and Gross National Product (GNP) have been erratic during the past two years (Chart 1). Successive predictions for

the future have also oscillated, ranging from moderate growth with a "soft landing" to recession. Our forecasts show that 1990 will mark the beginning of a sustained growth period. The forecast bodes especially well for Illinois through 1991:I since GSP growth is expected to exceed growth in GNP. Personal Income (Chart 2) will grow more rapidly than its national counterpart through much of the next two years.

Chart 3 identifies the composition of growth in GSP from 1989:IV through 1991:IV. Growth will be highest in the service industry, accounting for 28.1 percent of total growth, distantly followed by wholesale and retail trade, and finance, insurance, and real estate. Manufacturing is expected to comprise only 13.3 percent of growth over the forecast period. Chart 4 shows that manufacturing is expected to lag behind services for the foreseeable future.

FORECAST STATISTICS

Personal Income (millions of dollars, seasonally adjusted at annual rates)

	1988	1989:I	1989:II*	1989:III	1989:IV	1990:I	1990:II	1990:III	1990:IV	1991:I	1991:II	1991:III	1991:IV
Total personal income	\$203,812	\$217,824	\$220,169	\$221,766	\$225,505	\$229,486	\$233,376	\$237,142	\$241,405	\$246,021	\$250,679	\$255,392	\$260,306
Total private nonfarm	130,642	139,480	141,050	142,072	144,468	147,019	149,511	151,923	154,654	157,611	160,596	163,615	166,763
Mining	977	899	943	1,014	1,011	1,006	1,007	1,008	1,006	1,003	1,002	1,000	998
Construction	9,123	10,322	10,050	10,058	10,238	10,534	10,672	10,751	10,963	11,263	11,419	11,548	11,776
Manufacturing	32,247	34,415	34,860	34,067	34,317	34,567	34,866	35,159	35,504	35,913	36,413	36,918	37,419
Durable	19,888	21,342	21,776	20,840	20,949	21,048	21,186	21,323	21,514	21,761	22,090	22,422	22,751
Nondurable	12,359	13,073	13,084	13,227	13,368	13,519	13,680	13,836	13,990	14,152	14,323	14,496	14,663
Transportation & utilities	11,483	12,012	12,118	12,256	12,450	12,653	12,846	13,035	13,282	13,504	13,773	14,055	14,290
Wholesale trade	11,997	12,958	13,021	13,186	13,393	13,610	13,824	14,038	14,296	14,534	14,810	15,097	15,349
Retail trade	13,752	14,669	14,464	14,666	14,916	15,113	15,364	15,591	15,858	16,083	16,360	16,627	16,907
Finance, insurance, & real estate	13,178	14,190	14,074	14,332	14,620	14,934	15,248	15,564	15,898	16,264	16,630	17,011	17,396
Services	37,886	40,015	41,470	42,493	43,523	44,602	45,684	46,777	47,847	49,047	50,189	51,359	52,628

*forecast begins

Gross State Product (millions of dollars, seasonally adjusted at annual rates)

	1988	1989:I*	1989:II	1989:III	1989:IV	1990:I	1990:II	1990:III	1990:IV	1991:I	1991:II	1991:III	1991:IV
Total	\$241,358	\$252,503	\$258,288	\$260,257	\$264,413	\$267,709	\$272,242	\$276,706	\$281,488	\$285,744	\$291,242	\$296,662	\$302,336
Agriculture, & fishery	2,815	2,648	2,750	2,816	2,858	2,885	2,902	2,913	2,919	2,924	2,926	2,928	2,929
Mining	1,709	1,257	1,298	1,271	1,225	1,177	1,145	1,118	1,086	1,058	1,034	1,010	990
Construction	10,213	10,368	10,747	11,122	11,201	11,065	11,421	11,778	11,868	11,773	12,137	12,486	12,593
Manufacturing	47,474	50,634	51,693	50,172	50,505	50,854	51,313	51,776	52,316	52,988	53,834	54,683	55,539
Durable	25,802	27,872	28,479	26,706	26,774	26,826	26,954	27,096	27,324	27,658	28,139	28,620	29,109
Nondurable	21,672	22,762	23,214	23,466	23,731	24,028	24,359	24,680	25,330	25,695	26,063	26,430	
Transportation & utilities	25,232	27,355	27,900	28,436	28,988	29,551	30,129	30,721	31,321	31,937	32,565	33,202	33,857
Wholesale trade	20,406	20,832	21,476	21,748	22,047	22,347	22,654	22,965	23,312	23,662	24,059	24,493	24,928
Retail trade	22,473	24,049	24,622	25,032	25,607	25,877	26,439	26,871	27,437	27,802	28,380	28,889	29,524
Finance, insurance, & real estate	44,508	44,868	45,722	46,182	46,803	47,463	48,188	48,974	49,803	50,673	51,612	52,576	53,568
Services	44,492	47,558	48,821	50,090	51,236	52,368	53,612	54,961	56,262	57,568	58,960	60,423	61,893

*forecast begins

Chart 1. Growth of Gross National Product vs. Gross State Product

(percentage change from previous quarter)

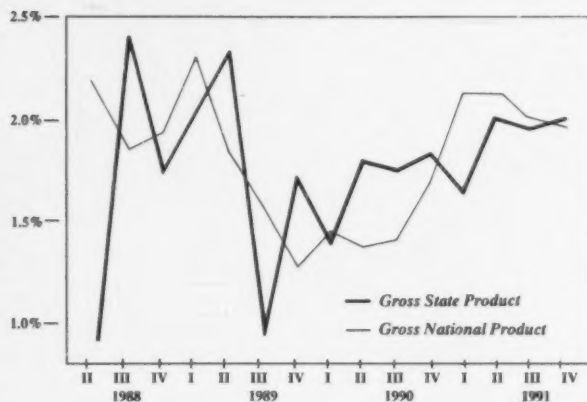


Chart 2. Growth in Illinois Personal Income vs. US Personal Income

(percentage change from previous quarter)

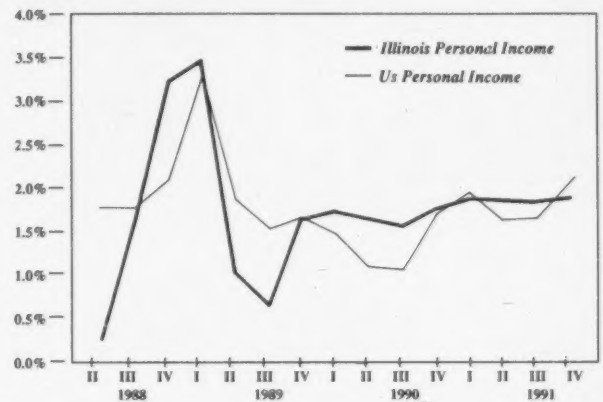


Chart 3. Composition of Growth in Gross State Product (1989:IV to 1991:IV)

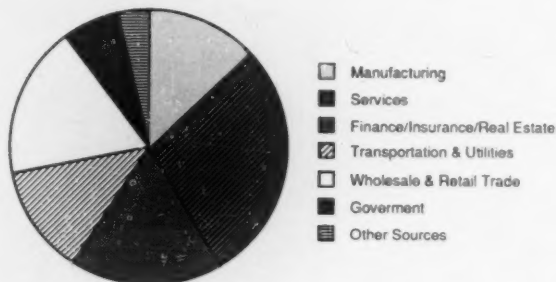
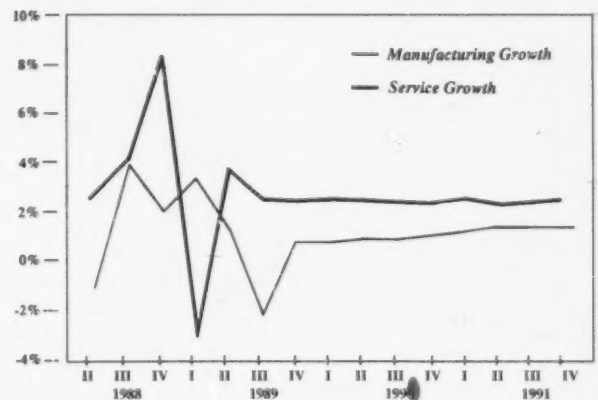


Chart 4. Manufacturing vs. Services Sector Growth (1989:IV to 1991:IV)

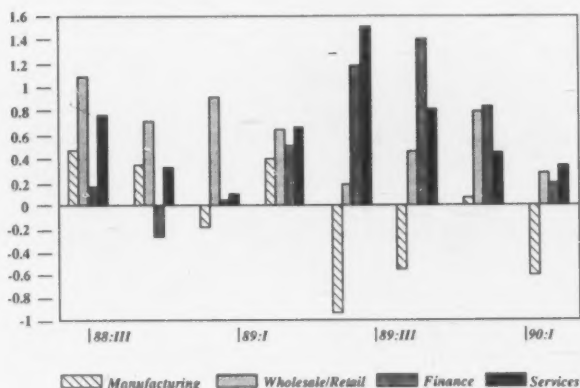


Historical Statistics

	Percent Change Sept. 1988 Sept. 1989	Sept. 1989	Aug. 1989	July 1989	June 1989	May 1989	Apr. 1989	Sept. 1988
Building permits (thousands)								
Residential housing units	-18.07	3,583	3,973	3,373	3,436	4,368	4,818	4,373
Value of residential units	-12.00	\$317,723	\$345,958	\$306,526	\$329,703	\$377,644	\$380,748	\$361,047
Value of nonresidential housing								
Industrial buildings	7.89	\$30,098	\$54,696	\$41,667	\$50,955	\$30,406	\$20,483	\$27,897
Office, banks, and professional buildings	-14.89	\$60,508	\$91,753	\$33,443	\$154,438	\$45,638	\$93,349	\$71,098
Stores and other mercantile buildings	27.78	\$79,991	\$36,933	\$42,740	\$59,292	\$63,619	\$39,739	\$62,600
Other	-5.69	\$4,459	\$10,094	\$8,372	\$5,280	\$9,463	\$7,221	\$4,728
Consumer price index (1982-1984 = 100)								
North Central US	4.08	122.5	122.0	122.0	121.8	121.3	120.8	117.7
North Central/population more than 1,200,000	4.29	124.1	123.5	123.5	123.0	122.2	121.9	119.0
North Central/population 360,000 to 1,200,000	3.42	121.0	120.9	120.7	120.9	120.8	120.6	117.0
North Central/population 50,000 to 360,000	4.09	122.2	122.1	122.0	122.1	122.2	121.2	117.4
North Central/population less than 50,000	3.15	117.8	117.1	117.5	117.4	116.8	116.3	114.2
Chicago	4.18	127.1	126.4	126.4	125.7	123.9	124.0	122.0
St. Louis	5.63	123.9	—	123.1	—	121.5	—	117.3

Total employment in Illinois will register moderate growth through the first half of 1990, according to the Illinois Econometric Model. Private nonfarm employment is expected to be slightly less than 4.5 million by mid 1990. However, there will be markedly different growth rates across various sectors of the economy (Chart 1). Most notably, the decline in manufacturing employment and the strong growth in the service sector is expected to continue. Shrinking job opportunities in durable goods manufacturing at the state level are a reflection of the large employment decreases occurring at the national level. It is expected that there will be 180 thousand fewer jobs in US durable good manufacturing by the second quarter of 1990. Similarly, Illinois is part of a national trend of increasing growth in service employment and moderate expansion in the financial sector.

Illinois Employment (percentage change from previous quarter)



Illinois Seasonally Adjusted Employment

	History				Forecast			
	1988:III	1988:IV	1989:I	1989:II	1989:III	1989:IV	1990:I	1990:II
Total private nonfarm (thousands)	4,365.8	4,384.0	4,396.1	4,418.4	4,441.5	4,461.9	4,488.3	4,488.2
Mining	20.9	20.6	20.3	20.5	20.7	20.8	21.2	20.8
Construction	206.3	208.7	210.6	209.5	215.3	217.5	220.7	218.8
Manufacturing	974.8	978.4	976.8	980.7	971.5	965.9	966.6	960.3
Durable	598.1	600.8	599.4	601.1	594.9	591.3	593.9	589.3
Primary metals	55.3	55.4	55.6	55.8	54.9	54.6	53.7	52.9
Fabricated metals	111.0	111.9	111.8	112.1	108.6	108.8	107.6	107.1
Nonelectrical machinery	145.4	145.8	145.6	146.0	140.8	138.7	136.4	134.3
Electrical machinery	120.5	121.1	121.3	120.8	121.6	122.3	122.7	123.3
Nondurable	376.7	377.6	377.4	379.6	376.6	374.6	372.7	371.0
Food products	90.8	90.9	91.0	91.9	91.8	91.2	90.6	90.1
Printing and publishing	112.9	113.3	113.1	112.9	112.4	111.8	111.4	111.1
Chemicals	61.2	61.4	61.6	62.1	62.0	62.0	61.7	61.5
Utilities and transportation	301.1	301.5	301.4	302.9	303.6	305.0	307.8	307.9
Wholesale and retail trade	1,260.4	1,269.1	1,280.3	1,288.4	1,291.0	1,297.2	1,307.3	1,310.8
Finance, insurance, and real estate	370.3	369.4	369.6	371.5	375.7	381.0	384.1	384.9
Services	1,232.0	1,236.3	1,237.1	1,245.0	1,263.7	1,274.6	1,280.6	1,284.8

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The Mix of the Mixed Economy-- A Cross-Country Perspective

The mix of the mixed economy has several dimensions each of which displays considerable variation among Organization for Economic Development countries. At the one extreme one usually finds Japan, at the other, Sweden.

The purpose of this article is to use such variation for a cross-country analysis of the effects of the size of government. I shall examine the effects on inflation, the labor force participation rate, gross saving, and economic growth.

Putting conclusions first, we find that countries with larger governments are likely to have higher inflation, slightly higher participation, lower gross saving, and slower economic growth than countries with smaller governments.

I use the following definitions:

E $\equiv$ total employment

e $\equiv$ government employment

F $\equiv$ labor force

g $\equiv$ rate of growth of real gross domestic product

i $\equiv$ rate of inflation

P $\equiv$ population from age 15 to 64

R $\equiv$ government current receipts

r $\equiv$ before-tax nominal rate of interest

ρ $\equiv$ after-tax real rate of interest

S $\equiv$ gross saving

T $\equiv$ tax rate

Y $\equiv$ gross domestic product

Government, Large and Small

The size of government can be measured along at least four dimensions. One measure of size is in terms of the number of workers government employs relative to total employment. A second measure of government is in terms of income it transfers from one group to another. Third, government can be viewed in terms of the portion of

the economy's resources it consumes. And fourth, the size of government can be measured in terms of the taxes it raises in relation to domestic income.

For 1980-1986 the OECD¹ reports government employment as a percentage of total employment, e/E (see first column of table). The Swedish percentage is the highest and the Japanese one the lowest among OECD countries. The cross-country range is very wide: the Japanese percentage is a mere 20 percent of the Swedish one.

The OECD reports the 1980-1986 social-security transfer payments as a percentage of gross domestic product (see second column of table). Here the Swedish percentage is not the highest among OECD countries and the Japanese one not the lowest. Between them the cross-country range is moderate: the Japanese percentage is 60 percent of the Swedish one.

For 1980-1986 the OECD reports government final consumption as a percentage of gross domestic prod-

uct (see third column of table). The Swedish percentage is the highest and the Japanese one the lowest among OECD countries. The cross-country range is now wider: the Japanese percentage is merely 35 percent of the Swedish one.

Government transfers, subsidies, interest payments, final consumption, and gross capital formation must be financed. For 1980-1986 the OECD reports government receipts as a percentage of gross domestic product, R/Y (see fourth column of table). The Swedish percentage is the highest and the Japanese one the lowest among OECD countries. The Japanese percentage is 50 percent of the Swedish one.

Statistical Work

Such wide variation tempts one to use cross-country regression analysis to illuminate the effects of

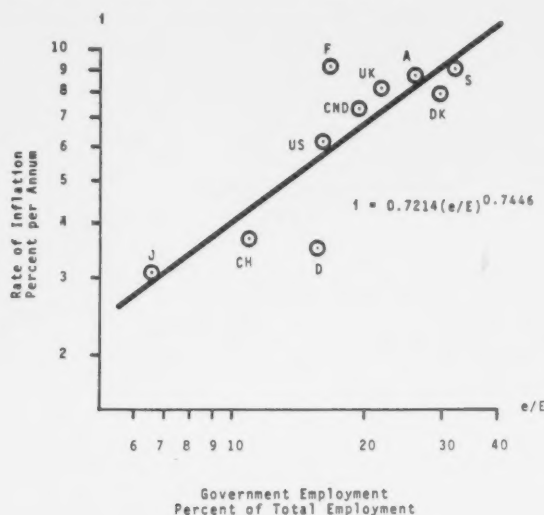
¹ All data come from the OECD *Historical Statistics* for 1960-1988. A complete list of references is available from the author upon request.

Alternative Measurements of Government Size

	Government Employment	Transfer Payments	Government Consumption	Tax Receipts
Sweden	32.2%	18.3%	28.3%	59.2%
European Community	17.1	18.2	18.9	43.2
United States	16.2	11.3	18.1	31.1
Switzerland	11.0	13.3	13.1	33.9
Japan	6.6	10.9	9.9	29.8

Note: Government employment is stated as a percent of total employment; transfer payments, government consumption, and tax receipts are stated as percents of gross domestic product.

Chart 1. Inflation and Government Employment



the size of government. My regressions will use a small sample of 10 advanced North American, North-western European, and pacific-rim countries, that is, Australia (A), Canada (CND), Denmark (DK), France (F), Germany (D), Japan (J), Sweden (S), Switzerland (CH), United Kingdom (UK), and the United States (US).

Inflation and Government Employment

For our 10 countries 1980-1986 Chart 1 shows the rate of inflation as a function of government employment: a country with a 1 percent higher government employment will typically have a 0.74 percent higher rate of inflation. The effect is powerful enough to be statistically significant. Why should there be such an effect?

Private industry produces for a market, often an international market with price-elastic demand. Private industry can and will go bankrupt after a protracted profits squeeze not relieved by devaluation. In contrast, government does not produce for a market but produces public goods and is required by law to deliver them. Government cannot go bankrupt but can

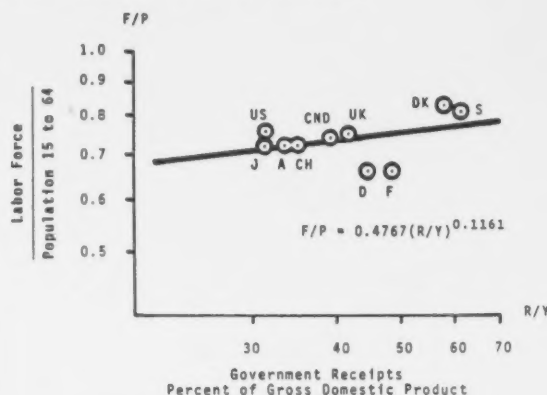
always tax and borrow. As a result government resistance to wage demands can be expected to be weaker than the resistance of private industry.

Swedish experience is illuminating. Swedish civil servants won the right to strike in the 70s and in the 80s became increasingly militant. Until 1975 industry traditionally opened collective bargaining. But after 1975 the rapidly growing public sector has increasingly assumed the role of a wage leader.

We shall understand the role of government as a wage leader even better if we look at wage differentials *within* government: government wage differentials are traditionally narrower than private ones. At the top end of the scale the highest-paid government employees are paid less than the highest-paid private ones. As a result government finds it difficult to keep its best computer experts, tax experts, professors, or airforce pilots. At the opposite end of the scale the lowest-paid government employees are paid more than the lowest-paid private ones. The private sector finds it difficult to keep skilled blue-collar workers, and wage drift results.

All this leads us to expect high

Chart 2. Participation Rate and Tax Burden



government employment to make an economy more inflation-prone.

Participation Rate and Tax Burden

By the participation rate we mean the labor force as a fraction of the population of approximate working age (15 through 64 years). By the tax burden we mean government receipts as a percent of the gross domestic product. Taxes include direct as well as indirect taxes. A flat direct tax rate of T percent will reduce after-tax real income by T percent at unchanged prices. A flat indirect tax rate of T percent will reduce it by raising all prices by T percent at unchanged money income.

For our 10 countries 1980-1986 Chart 2 shows the participation rate as a function of the tax burden: a country with a 1 percent higher tax burden will typically have a 0.12 percent higher participation rate. But the effect is not powerful enough to be statistically significant, and the reason is not difficult to see.

Let income and leisure be substitutes. At a high tax rate another breadwinner adds less after-tax real income and may not be worthwhile: the substitution effect upon the participation rate is negative. But at a high tax rate the household can also afford less of everything

and may try to keep up after-tax real income by adding another breadwinner: the income effect upon the participation rate is positive. The substitution effect and the income effect pull in opposite directions. Their balance may be small and precarious and go either way. In Chart 2 it is small and goes positive: the income effect is winning--a finding not inconsistent with conventional findings on the labor supply of wives.

Saving and Tax Burden

For the 10 OECD countries 1980-1986 Chart 3 shows the gross saving rate as a function of the tax burden: a country with a 1 percent higher tax burden will typically have a 0.61 percent lower gross saving rate. The effect is powerful enough to be statistically significant. Why should there be such an effect?

On the macroeconomics of saving and taxes Adam Smith (1776) said succinctly: "[Kings and ministers] are themselves always, and without exception, the greatest spendthrifts in the society." Do such eighteenth-century observations apply to modern welfare states?

To begin with, not only may modern governments fail to save; they typically dissave. As reported by the OECD, for 1980-1986 all the governments of our 10 countries except the Swiss had outlays in excess of receipts.

Next, not only may governments fail to save, they may also dissuade their private citizens from saving. Perhaps the most important incentive to private saving is the fact that income dries up following retirement. To the extent that social security removes that incentive, it tends to reduce private saving. Does it replace the lost private saving by government saving? As Martin Feldstein pointed out in 1974, the answer depends on how social security is financed.

The actuarial principle would require social-security contributions to be paid into a fund placed in interest-earning assets. Upon retirement a participant would be receiving an annuity whose size would depend upon the size of his past contributions and the interest earned on them. Like the voluntary contributions of a private insurance scheme the mandatory contributions of a government scheme

would be saved: government saving would indeed replace the lost private saving.

It would remain true, as often observed, that current annuities are taken from current output. But current output is a function of current labor and current accumulated capital stock. Whether accumulated as the result of government or private saving, the accumulating fund would be invested in an accumulating physical capital stock giving the economy a larger current output than would have been possible without the fund.

By contrast the pay-as-you-go principle requires social-security contributions to be collected in the form of a tax instantly spent on annuities in the form of transfer payments. No accumulating fund would be invested in an accumulating physical capital stock. No government saving would replace the lost private saving. Lawrence J. Kotlikoff in 1987 estimated capital stock to be 20 to 30 percent less under pay-as-you-go social-security schemes on the scale common in advanced economies of the 1980s.

At their origins in 1889 and 1935, respectively, both German and US social-security legislation embraced the actuarial principle. But these systems shifted to the pay-as-you-go principle in 1957 and 1939, respectively. Sizable funding of social security is found in Japan, Sweden, and Switzerland--all three lying above the regression line of Chart 3.

In the case of private lending or borrowing, consider a lender and a borrower in a capital market in which money may be placed and borrowed at the before-tax nominal rate of interest r . Let the rate of inflation be i and the tax rate T . If savers have neither money nor tax illusions, then their supply of saving will depend solely on the after-tax real rate of interest

$$\rho \equiv (1 - T)r - i.$$

Here consider a higher tax rate. A higher tax rate T will reduce $(1 - T)$, and ρ can stay the same only as

Chart 3. Saving and Tax Burden

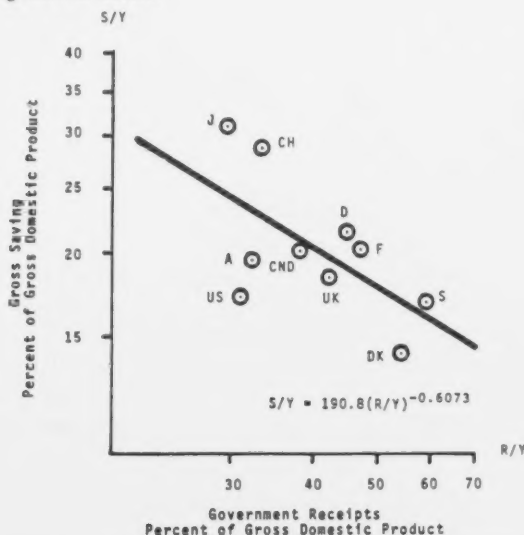
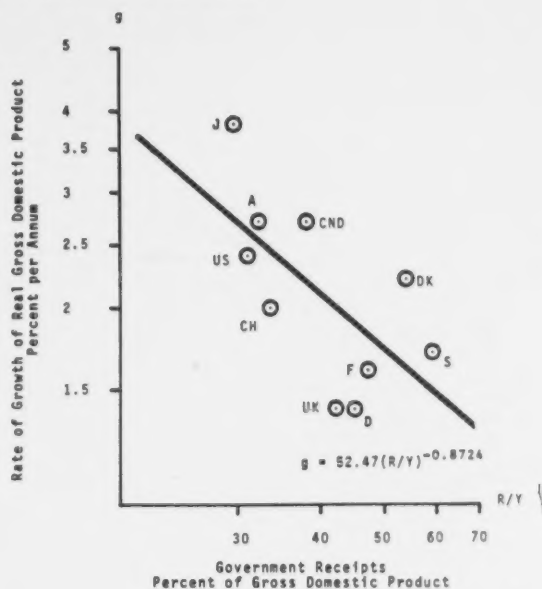


Chart 4. Rate of Growth and Tax Burden



long as the before-tax nominal rate of interest r is in inverse proportion to $(1 - T)$. For example, at an inflation rate $i = 0.07$ the after-tax real rate of interest can stay the same at, say, $p = 0.05$ only if at tax rates $T = 0.2, 0.4$, and 0.6 the before-tax nominal rate r were $0.15, 0.20$, and 0.30 , respectively, and indeed would be rising without bounds for T approaching one--the Feldstein (1976) effect. Can borrowers afford such rates?

Borrowers will borrow until their after-tax rate of return equals the after-tax real rate of interest at which they are borrowing. A higher tax rate T will reduce their after-tax rate of return, hence their demand for funds. Their demand for borrowing will then meet the supply of saving at a lower after-tax real rate of interest p . Saving and investment will both be down.

Rate of Growth and Tax Burden

Chart 4 shows the rate of growth as a function of the tax burden for our 10 countries 1980-1986. A country with a 1 percent higher tax burden will typically have a 0.87 per-

cent lower rate of growth. The effect is powerful enough to be statistically significant. Why should there be such an effect? Some of our earlier findings may help us interpret Chart 4.

International competitiveness implies a low rate of inflation and is one prerequisite for a high rate of growth. If, as in Chart 1, a higher rate of inflation will go with higher government employment so will, in Chart 4, a lower rate of growth.

Technological progress is the dominant source of growth. In the real world, technology itself must be produced before technological progress can make its way into actual production. The research and development involved in producing new technology takes time. Such research and development is one part of gross investment financed by gross savings. In turn, once produced such technological progress must be embodied in new producers' goods, physically different from those replaced. Such embodiment and replacement is another part of gross investment financed by gross saving.

In short, a high gross saving ratio is another prerequisite for a high rate of growth. If, as in Chart 3, a lower gross saving ratio will go with a higher tax burden so will, in Chart 4, a lower rate of growth.

Summary and Conclusions

The wide variation of the mix of the mixed economy among OECD countries has enabled us to do a cross-country analysis of the effects of the size of government. The effect upon the rate of inflation was found to be positive and statistically significant. The effect upon the participation rate was found to be slightly positive but not statistically significant. The effect upon gross saving was found to be negative and statistically significant. The effect upon growth was also found to be negative and statistically significant.

No attempt was made to estimate the effects, not directly¹ observable, upon the size of the underground economy.

The 10 OECD countries constituting our sample were all advanced capitalist economies to which standard economic theory ought to apply. The signs, sizes, and statistical significance, or lack of it, of the four effects were inconsistent neither with standard economic theory nor with empirical findings using domestic US data.

¹Such effects may be indirectly observable: Bruno Frey and Hannelore Weck observed in 1983 and 1984 the increase between 1960 and 1978 of determinants and symptoms of an underground economy and ranked 17 OECD countries according to such increase. Sweden was always at or near the top, Japan or Switzerland at or near the bottom of the list.

Making the Grade: Education Expenditures in Illinois

One of the lasting effects of the 1980s will be the renewed concern on the part of the general public for the quality of education in the United States. Through a series of well-publicized studies, the nation was reminded that successful public education programs require vigilance and innovation by educational professionals, support from funding authorities, and responsiveness to the needs and concerns of the public. However, proposals for improvement and sup-

port of schools are soon met with the practical realities of the legislative and budgeting process. For residents of Illinois, controversy over the funding of education has become an all too familiar subject.

The purpose of this article is to examine the performance and the trends in state and local funding of Illinois public schools. The second section considers education expenditures by state and local authorities for all levels of education. The third section briefly examines the funding

levels and sources for elementary and secondary education. The fourth section surveys the level of expenditures by local authorities for elementary and secondary education. The fifth section considers expenditures by states in support of institutions of higher education. The last section offers conclusions.

Total Education Expenditures by State and Local Governments

An all-inclusive measure of the level of education spending in Illinois is the level of expenditures by the state and local governments for all types of public education. Between 1978 and 1987,¹ expenditures by state and local governments in Illinois increased from \$5.9 billion to \$10.3 billion, representing an average annual growth rate of 6.4 percent. At the national level, growth in expenditures averaged about 8.2 percent per year over the same period.

To compare expenditure levels among states, it is necessary to compare them on equal terms. Tables 1-3 show comparisons of expenditure levels for each state in per capita amounts and per thousand dollars of personal income. For each indicator, the level of spending in 1987 is given as well as the average level of spending for the years between 1978 and 1987. Based on the resulting calculations, each state is ranked from highest to lowest level of expenditure.

Table 1. Per Capita State and Local Education Expenditures

State	1987	Rank	10-year Average	Rank	State	1987	Rank	10-year Average	Rank
U.S.	987.26		893.65						
Ala.	857.74	42	736.46	45	Mont.	1,073.75	15	981.05	14
Alaska	2,177.13	1	3,071.57	1	Nebr.	1,013.51	21	866.88	28
Ariz.	1,127.98	9	950.32	19	Nev.	868.47	40	950.68	18
Ark.	817.90	47	656.80	51	N. H.	890.58	37	746.51	42
Calif.	1,008.62	22	1,005.37	9	N. J.	1,081.17	14	947.53	20
					N. Mex.	1,044.52	18	1,000.48	10
Colo.	1,067.19	1	961.09	16	N. Y.	1,213.47	5	1,188.13	4
Conn.	1,015.57	20	890.04	26	N. C.	951.90	29	736.62	44
Del.	1,218.83	3	1,051.28	6	N. D.	1,110.58	11	992.65	12
D.C.	977.32	27	1,374.36	3	Ohio	938.33	32	807.71	33
Fla.	808.87	48	761.38	40					
					Okla.	869.07	39	791.15	36
Ga.	910.74	35	774.75	39	Oreg.	1,125.84	10	1,011.98	7
Hawaii	804.06	50	975.97	15	Pa.	904.11	3	788.96	37
Idaho	818.74	46	742.19	43	R. I.	982.71	26	924.89	23
ILL.	885.94	38	845.24	29	S. C.	935.08	33	726.71	46
Ind.	965.60	28	757.81	41					
					S. D.	834.28	44	838.31	31
Iowa	1,071.58	16	910.61	25	Tenn.	941.20	3	683.65	50
Kans.	989.03	24	875.33	27	Tex.	984.38	25	806.89	34
Ky.	804.92	49	717.28	47	Utah	1,082.96	13	940.61	22
La.	767.52	51	843.80	30	Vt.	1,216.11	4	941.70	21
Maine	944.19	30	794.92	35					
					Va.	1,015.91	19	813.03	32
Md.	998.06	23	952.78	17	Wash.	1,090.24	12	986.92	13
Mass.	922.50	34	916.94	24	W. Va.	867.40	41	775.00	38
Mich.	1,188.88	6	1,005.59	8	Wisc.	1,165.56	8	993.59	11
Minn.	1,171.91	7	1,071.23	5	Wyo.	1,594.44	2	1,464.78	2
Miss.	842.81	43	708.37	48					
Mo.	830.21	45	698.50	49					

¹ All years refer to the academic year beginning at the indicated date.

Table 2. Education Expenditures as a Percent of Total Expenditures

State	10-year				State	10-year			
	1987	Rank	Average	Rank		1987	Rank	Average	Rank
U. S.	34.6		41.8						
Ala.	38.5	15	42.4	25	Mont.	38.2	16	43.0	16
Alaska	22.8	50	36.7	50	Nebr.	39.0	11	43.1	14
Ariz.	37.8	22	43.9	5	Nev.	29.6	46	39.9	47
Ark.	42.0	4	43.1	13	N.H.	36.5	30	41.9	34
Calif.	31.1	43	41.3	39	N. J.	32.8	40	40.9	42
Colo.	36.9	27	43.9	4	N. Mex.	36.8	29	43.5	10
Conn.	31.1	44	40.7	43	N. Y.	28.9	47	39.4	49
Del.	37.0	26	43.6	9	N. C.	41.9	5	44.2	3
D. C.	16.9	51	34.9	51	N. D.	38.0	18	42.3	26
Fla.	31.7	42	41.5	38	Ohio	36.4	31	42.2	28
Ga.	35.1	35	41.1	41	Okla.	37.7	23	43.0	18
Hawaii	27.1	49	40.1	46	Oreg.	38.0	19	43.0	20
Idaho	36.8	28	43.2	11	Pa.	35.9	32	42.1	29
ILL.	33.9	37	42.0	30	R. I.	32.2	41	40.3	45
Ind.	42.1	2	45.0	2	S. C.	40.8	7	43.7	6
Iowa	40.4	8	43.7	7	S. D.	35.4	34	42.6	24
Kans.	38.6	13	43.0	19	Tenn.	42.0	3	41.8	35
Ky.	35.4	33	41.9	32	Texas	40.0	9	43.7	8
La.	30.4	45	40.5	44	Utah	42.7	1	45.7	1
Maine	35.1	36	41.3	40	Vt.	41.5	6	43.1	15
Md.	33.8	38	42.0	31	Va.	38.5	14	43.0	17
Mass.	28.1	48	39.5	48	Wash.	38.0	21	43.2	12
Mich.	38.1	17	42.7	23	W. Va.	38.0	20	42.3	27
Minn.	33.8	39	41.6	37	Wisc.	39.5	10	42.9	21
Miss.	37.5	24	41.9	33	Wyo.	37.3	25	41.8	36
Mo.	38.8	12	42.9	22					

Table 1 indicates the per capita education expenditures by state and local governments. We see that Illinois has spent less per capita on education than the national average in the most recent year and, on average, for the preceding 10 years. In 1987, Illinois ranked 38th in the nation with education expenditures totalling \$885.94 per capita. The state ranked 29th in average spending over the previous 10-year period with expenditures of \$845.24. Although it is not evident from the table, the difference between the national average and spending in Illinois has increased steadily since 1978. Prior to 1978, Illinois followed the national level of spending closely, with occasional increases or decreases relative to the national

average. However, by 1987 Illinois state and local governments spent over \$100 per capita less than the national average.

It is also instructive to compare the level of expenditures to the total direct expenditures of state and local governments. Table 2 indicates the percent of direct expenditures of each state devoted to education. In 1987, Illinois ranked 37th in the nation. Over the preceding 10-year period, 29 states spent a larger percent of total direct expenditures on education than did Illinois. States with lower per capita personal income tend to spend a greater percentage of total state and local expenditures on education than do states with higher per capita income. This may represent a higher

priority given to education expenditures than to other social and public service functions of government when fiscal resources are scarce.

Table 3 (page 9) compares the total level of education spending by state and local governments to the level of personal income. We would expect that states with high levels of personal income, such as Illinois,¹ could more easily finance all types of government expenditures. Therefore, comparing expenditures relative to personal income accounts for such differences in financial resources and allows comparison of expenditure levels among states with varying fiscal resources.

The table indicates that Illinois spent \$54.18 per thousand dollars of personal income in 1987 on all levels of public education, compared with a national average of \$64.44, placing Illinois 44th in the nation.

In terms of average spending levels for the preceding 10-year period, the state spent \$54.21 per thousand dollars of personal income or about \$9.40 less than the national average on education. Among neighboring states, Illinois ranked behind Minnesota, Wisconsin, Iowa, Michigan, Indiana, and Kentucky.

State and Local Funding of Elementary and Secondary Education

Elementary and secondary education funding nationwide has increased in both nominal and real terms for the last several years.

¹ In 1987, Illinois ranked fourth in total personal income and twelfth in per capita personal income.

Revenues of the nation's schools have increased from \$40.2 billion in 1969 to \$176.2 billion in 1987. In real dollars the increase has amounted to approximately 40 percent. The Chart (page 10) indicates the percent of all revenues contributed by federal, state, and local authorities over the period. Most noticeably, the federal government has traditionally taken a relatively small role in the direct funding of education in the United States. As a result, the burden of financing education has fallen to the state and local governments. Furthermore, even the relatively small contribution of the federal government has declined from 9.8 percent in the late 1970s to 6.4 percent by 1987. Reduced contributions by the national government have necessitated increased contributions by state and local authorities. However, the relative burden has shifted between the local and state governments as well. State governments' share of education funding has increased from less than 40 percent to nearly 50 percent over the period, as local funding percentages have dropped from over 52 percent to less than 44 percent.

In Illinois, transfers from state governments account for only 40 percent of total school district revenues, while the share from local funds, primarily from property taxes, is over 45 percent. From these figures we see that Illinois depends relatively more heavily on property taxes derived from local sources than state income taxes or sales taxes. However, on a regional basis, dependence on local tax revenue varies greatly. Table 4 (page 10) shows a breakdown of funding sources for the three major regions of Illinois. The Chicago city schools depended least on local taxes, while the Chicago area suburban districts received over two-thirds of their revenue from this

source. For the rest of the state, local taxes accounted for less than half of all revenues. Also given are the revenues of each region per student enrolled in public schools in that region. Chicago suburban school districts receive the greatest revenue per student, \$4,625, and the area outside of Chicago averaged \$3,296 per student.

A portion of state transfers to local school districts is from proceeds of the Illinois State Lottery. During fiscal year 1988, lottery sales of \$1.3 billion generated \$524.4 million in net proceeds. Since the institution of the lottery in 1973, its profits have been made available to public schools through the Common School Fund, reducing the burden on the General Revenue Fund for education spending. The lottery

proceeds account for approximately 19 percent of the state's contribution to the funding of elementary and secondary education.

Education Expenditures at the Elementary and Secondary Levels

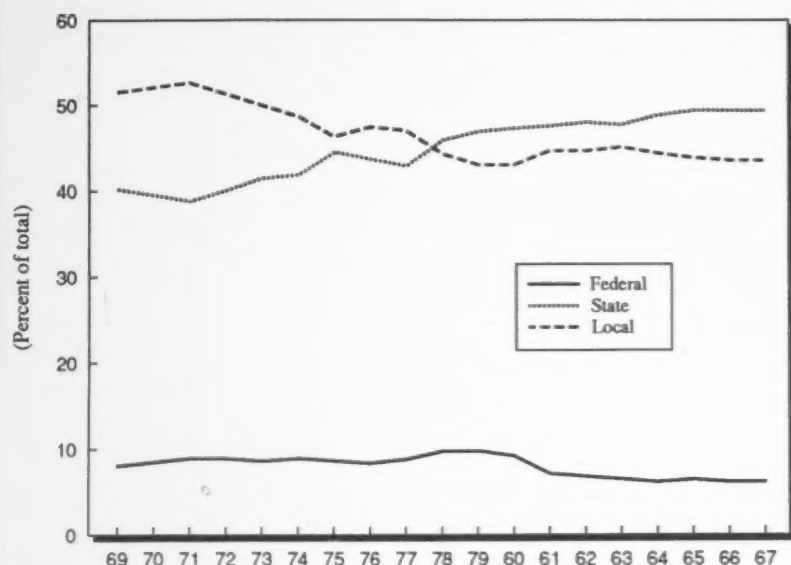
Table 5 (page 11) compares selected measures of education expenditures by local governments on elementary and secondary education per pupil in average daily attendance¹ and per thousand dollars of personal income in 1987 and on average for the period 1978 to 1987. In 1987, the average expenditure per student in average daily atten-

¹ Average daily attendance refers to the average number of pupils attending when schools are in session.

Table 3. State and Local Education Expenditures per Thousand Dollars of Personal Income

State	10-year				State	10-year			
	1987	Rank	Average	Rank		1987	Rank	Average	Rank
U. S.	\$ 64.44		\$ 63.61						
Ala.	71.56	21	72.44	18	Mont.	86.82	5	86.06	5
Alaska	117.85	2	129.89	1	Nebr.	72.24	18	71.32	20
Ariz.	80.81	10	79.64	9	Nev.	55.61	43	52.52	47
Ark.	71.82	20	69.17	23	N. H.	50.59	48	50.85	49
Calif.	58.12	39	58.50	39	N. J.	53.65	45	54.56	43
Colo.	68.22	28	68.26	25	N. Mex.	88.53	4	95.36	4
Conn.	48.09	51	46.90	51	N. Y.	67.91	29	66.66	29
Del.	76.15	16	75.04	14	N. C.	72.17	19	72.41	19
D.C.	49.68	49	47.88	50	N.D.	86.02	7	83.72	6
Fla.	53.22	46	52.80	46	Ohio	64.61	34	62.11	35
Ga.	64.47	35	61.82	36	Okla.	68.57	26	68.13	26
Hawaii	52.41	47	57.06	41	Oreg.	82.26	8	79.84	8
Idaho	69.63	24	67.80	27	Pa.	59.79	38	55.88	42
ILL.	54.18	44	54.21	44	R. I.	63.09	36	64.37	34
Ind.	69.36	25	64.91	32	S. C.	78.43	12	76.18	12
Iowa	76.69	15	74.46	15	S. D.	67.55	30	71.22	21
Kans.	66.08	33	66.25	31	Tenn.	57.59	40	58.35	40
Ky.	67.17	31	64.80	33	Texas	71.38	22	66.88	28
La.	66.11	32	68.79	24	Utah	94.51	3	97.41	3
Maine	68.56	27	66.26	30	Vt.	86.78	6	81.58	7
Md.	55.83	42	60.22	38	Va.	62.48	37	61.19	37
Mass.	48.49	50	51.76	48	Wash.	71.37	23	70.32	22
Mich.	76.71	14	72.79	16	W. Va.	77.87	13	76.95	11
Minn.	75.32	17	72.60	17	Wis.	80.22	11	77.49	10
Miss.	81.69	9	75.96	13	Wyo.	121.50	1	110.96	2
Mo.	57.12	41	54.08	45					

Revenues for Public Schools (by source of funds)



dance for the United States was \$4,279, while in Illinois the comparable figure was \$4,285. Overall, Illinois ranked 22nd in the nation by this measure. For the previous 10-year period, Illinois local authorities spent \$3,255 annually per student compared with \$3,109 for the nation as a whole.

The average expenditure per student does not adequately reflect the differences in expenditures across counties and school districts within the state. On a county level, Cook county spent the most with expenditures of \$4,967 per student during 1987, while DuPage county was second with expenditures of \$4,573 per student. At the other end of the spectrum, Bond county spent the least, \$2,876 per student.

The inequality is greater at the school district level. In Cook county, Niles Elementary School District incurred expenses of \$8,452 per student. Sandridge School District spent the least in Cook county with expenditures of \$2,737 per student. In DuPage county, McAuley

School District incurred the greatest expenditure in the state with spending of \$12,866 per student. The school district with the lowest spending is Dalzell School District in Bureau County with expenditures of only \$2,085 per student.

The last section of Table 5 ranks local expenditures relative to statewide personal income. Illinois ranked near the bottom of the distribution of states by this measure, 47th in 1987, with spending of \$37.51 per thousand dollars of per-

sonal income. As the average level of expenditures indicates, below average spending is not a new trend in the state.

Funding of Higher Education

For the nation's public institutions of higher learning, the state governments provide the major source of funding. A small amount of support is provided by local and federal sources, with the remainder derived from tuition and fees. For the 10 years ending in 1987, funding of higher education by state governments has increased by over 8 percent each year at the national level and in Illinois. However, more revealing measures of differences in spending of state governments on higher education are per capita expenditure levels and spending relative to personal income [Table 6 (page 12)].

In 1987, Illinois spent \$161.63 per capita, \$53.68 less than the national average. Only Florida, Pennsylvania, and the District of Columbia spent less. Illinois state government spent \$9.86 per thousand dollars of personal income in 1987 compared to \$13.92 nationwide. This ranked Illinois 45th in the nation. For the period 1978 to 1987, spending at the national level averaged \$13.99, while in Illinois the comparable figure was \$9.74. The difference in funding levels represents a 43.6 percent shortfall by the state relative to the national average.

Table 4. School District Revenues by Region (1988-89)

Revenue Source	Chicago	Suburban Chicago Area*	Rest-of-State	Total
Local Taxes	\$ 704	\$2,125	\$1,086	\$3,915
Other Local	79	306	190	575
General State Aid	579	439	763	1,781
Other State	232	176	194	602
Federal	218	71	130	419
Total (millions)	1,812	3,117	2,363	7,292
Revenues per Student	\$4,314	\$4,625	\$3,296	\$4,027

*DuPage, Kane, Lake, McHenry, Will, and Suburban Cook counties

Table 5. Local Expenditures for Elementary and Secondary Education

State	Expenditures per Student in Average Daily Attendance				Expenditures per \$1000 of Personal Income			
	1987	Rank	10-year Average	Rank	1987	Rank	10-year Average	Rank
U. S.	4,279		3,109		45.06		43.97	
Ala.	2,659	47	2,164	47	38.46	43	40.99	38
Alaska	7,091	1	6,767	1	89.87	1	96.09	1
Ariz.	3,451	39	2,683	36	53.80	11	50.43	10
Ark.	2,618	50	2,117	49	48.45	22	46.52	22
Calif.	3,916	27	2,956	25	38.38	45	38.29	45
Colo.	4,462	15	3,307	16	47.49	25	46.41	23
Conn.	6,423	4	3,943	6	36.64	49	35.68	50
Del.	5,138	9	3,762	9	44.42	33	42.81	32
D. C.	5,843	5	4,438	3	42.58	36	39.55	42
Fla.	4,356	20	2,880	27	40.53	41	38.88	43
Ga.	3,715	33	2,408	43	48.59	21	43.84	29
Hawaii	3,859	28	3,141	21	33.43	51	34.33	51
Idaho	2,778	48	2,141	48	46.52	27	43.84	31
ILL.	4,285	22	3,255	18	37.51	47	37.91	46
Ind.	3,650	35	2,658	38	45.24	31	42.47	34
Iowa	4,313	21	3,124	22	46.92	26	46.86	21
Kans.	4,275	23	3,119	23	44.62	32	43.86	30
Ky.	3,444	40	2,241	45	41.63	38	40.07	41
La.	3,166	44	2,584	40	43.79	34	46.02	25
Maine	4,427	18	2,757	33	49.35	19	47.19	18
Md.	4,895	12	3,671	10	38.40	44	40.58	39
Mass.	5,680	6	3,786	7	35.91	50	40.45	40
Mich.	4,433	17	3,455	14	50.54	16	49.39	14
Minn.	4,390	19	3,287	17	51.32	14	50.49	9
Miss.	2,716	49	2,043	51	53.89	10	47.05	19
Mo.	3,641	36	2,668	37	40.83	40	38.80	44
Mont.	4,217	24	3,362	15	63.43	3	63.87	3
Nebr.	3,600	38	2,993	24	48.21	23	47.53	17
Nev.	3,626	37	2,716	34	39.49	42	37.55	47
N. H.	4,087	25	2,892	26	38.34	46	37.04	48
N. J.	6,933	3	4,417	4	41.10	39	42.00	35
N. Mex.	3,788	30	2,823	31	58.17	5	63.11	4
N. Y.	7,046	2	4,939	2	52.27	13	49.93	12
N. C.	3,720	32	2,441	42	46.17	30	46.01	26
N. D.	3,390	41	2,799	32	51.19	15	51.00	8
Ohio	3,825	29	2,864	28	47.74	24	44.81	28
Okla.	3,130	45	2,645	39	46.22	28	44.82	27
Oreg.	4,661	14	3,575	12	56.93	6	55.07	7
Pa.	5,052	10	3,597	11	46.21	29	42.66	33
R. I.	5,376	8	3,785	8	41.99	37	41.74	36
S. C.	3,382	42	2,374	44	52.70	12	48.68	16
S. D.	3,173	43	2,529	41	49.58	18	49.36	15
Tenn.	3,092	46	2,179	46	36.94	48	36.97	49
Texas	3,722	31	2,692	35	50.43	17	46.34	24
Utah	2,442	51	2,058	50	58.19	4	61.55	5
Vt.	4,791	13	3,231	20	54.59	8	49.40	13
Va.	4,436	16	2,860	29	43.02	35	41.47	37
Wash.	4,023	26	3,234	19	48.66	20	47.02	20
W. Va.	3,692	34	2,825	30	56.74	7	55.31	6
Wisc.	4,943	11	3,461	13	54.12	9	50.11	11
Wyo.	5,503	7	4,031	5	85.49	2	79.62	2

Such differences in expenditures do not necessarily imply lower educational quality at Illinois public universities and colleges. Many other factors are also important, including the availability of funds from the private sector, federal authorities, and student charges. However, with lower levels of state funding, pressures to increase tuition charges intensify, resulting in greater educational costs for college students. There is an obvious trade-off between lower taxes for many and high, and sometimes prohibitive, educational costs at state supported universities.

Conclusion

The primary conclusion that may be drawn from the data examined here is that spending in Illinois on education, whether for elementary, secondary, or post-secondary programs, is near the national average. However, in certain cases, Illinois' performance ranks it among the worst in the nation. Most notably, this conclusion emerges if expenditures for education are compared to personal income. Such a result should be quite disturbing, given that Illinois is a relatively wealthy state, as measured, for example, by personal income.

Perhaps, the situation is not as dire as the data indicate. Suppose that each state were spending the "optimum" amount on education. Then we would expect that as personal income increased, the education expenditures necessary to maintain the "right" amount of spending per pupil would not increase as fast as income. Under these conditions we would, in fact, see wealthier states spending less than poorer states relative to personal income.

The flaw in the foregoing argument is the assumption that states are currently spending the optimum amount on education. There is no evidence that states are overspending on education; quite the

Table 6. State Expenditures for Higher Education

State	Per Capita Expenditures				Expenditures per \$1000 of Personal Income			
	1987	Rank	10-year Average Rank		1987	Rank	10-year Average Rank	
U. S.	215.31		166.51		13.92		13.99	
Ala.	274.98	15	214.72	16	22.84	7	23.32	7
Alaska	440.09	1	484.91	1	23.84	6	29.88	2
Ariz.	279.22	14	220.24	13	19.50	15	20.22	12
Ark.	206.27	37	158.10	39	18.06	20	17.52	27
Calif.	229.54	27	175.73	31	12.92	40	12.71	40
Colo.	292.00	10	241.50	9	18.62	18	19.48	14
Conn.	182.30	43	126.74	44	8.58	47	8.37	47
Del.	422.34	2	328.82	2	25.90	4	26.68	5
D. C.	0.00	51	0.00	51	0.00	51	0.00	51
Fla.	104.95	50	86.67	49	6.73	50	7.50	49
Ga.	193.71	38	159.00	37	13.46	39	15.19	37
Hawaii	279.79	13	260.25	7	17.97	21	21.63	9
Idaho	215.24	32	186.17	23	18.25	19	19.18	17
ILL.	161.63	48	125.48	45	9.86	45	9.74	44
Ind.	284.80	12	209.07	18	20.36	11	19.11	18
Iowa	297.02	9	221.65	12	21.17	9	19.63	13
Kans.	228.25	28	197.43	22	15.13	35	16.69	32
Ky.	237.57	22	182.89	26	19.80	14	19.46	15
La.	216.84	31	182.99	25	18.85	17	18.50	22
Maine	227.64	29	158.53	38	16.26	32	15.53	35
Md.	208.25	36	161.34	36	11.43	42	12.12	42
Mass.	189.49	39	119.90	46	9.91	44	8.68	45
Mich.	308.54	7	202.74	20	19.83	13	16.74	31
Minn.	273.28	16	223.46	11	17.31	25	18.60	21
Miss.	169.46	46	146.65	42	16.45	31	18.26	24
Mo.	175.14	44	130.64	43	11.97	41	11.53	43
Mont.	210.43	33	173.59	32	17.10	27	17.11	29
Nebr.	249.80	21	198.37	21	17.72	23	17.68	26
Nev.	233.29	24	173.36	33	14.26	38	13.36	39
N.H.	189.02	40	148.63	41	10.45	43	12.23	41
N. J.	169.16	47	113.74	48	8.34	48	7.70	48
N. Mex.	302.92	8	274.97	6	25.48	5	28.83	3
N. Y.	169.89	45	117.00	47	9.47	46	8.61	46
N. C.	237.53	23	181.07	28	17.79	22	18.37	23
N. D.	407.82	3	304.03	3	31.80	1	28.68	4
Ohio	209.21	35	171.12	34	14.35	37	14.92	38
Okla.	256.78	18	219.84	14	20.37	10	20.60	11
Oreg.	229.71	26	181.83	27	16.52	30	16.31	33
Pa.	110.90	49	82.98	50	7.30	49	7.04	50
R. I.	232.27	25	180.74	29	14.81	36	15.71	34
S. C.	256.05	19	205.27	19	21.20	8	22.55	8
S. D.	189.01	41	184.95	24	15.23	33	19.31	16
Tenn.	217.55	30	162.86	35	16.76	29	16.75	30
Texas	210.08	34	178.09	30	15.18	34	15.47	36
Utah	355.72	5	299.31	4	30.85	2	32.31	1
Vt.	380.29	4	279.08	5	26.66	3	26.63	6
Va.	285.61	11	209.49	17	17.27	26	17.29	28
Wash.	314.54	6	254.46	8	20.12	12	20.67	10
W. Va.	187.38	42	157.93	40	17.01	28	17.69	25
Wisc.	258.95	17	217.01	15	17.65	24	18.97	20
Wyo.	250.14	20	225.25	10	19.49	16	19.06	19

opposite is probably true. Therefore, as personal income increases, we should see spending on education increase in proportion to income if states are striving to increase expenditures to the optimum level. Reference to the tables in this article suggest that there is a great difference in spending levels across states relative to personal income. Therefore, we must conclude that many states, including Illinois, are not doing as much as they could to support public education.

Star Series Lectures

The Bureau of Economic and Business research at the University of Illinois at Urbana-Champaign has begun a "Star Series," a program to provide speakers on topics of interest to citizens around the state. Since the series' inception, groups in Evergreen Park, Monticello, Decatur, and Peoria, have heard University experts speak on the economic outlook for the nation and for Illinois, along with discussions of interest rate developments and the real estate outlook. On April 5, the Marine Bank of Springfield sponsored a program for UI alumni and friends featuring Bureau Director, William R. Bryan speaking on the economic outlook and Professor Case Sprenkle debunking some common economic myths. On May 17, First Busey Corporation is hosting a program at the U of I Beckman Institute in which Professor Larry Neal will discuss the issues and implications of economic unification of Europe in 1992.

Anyone who would like further information on arranging such a program for a group (see the sidebar for a list of possible topics) should contact William R. Bryan, Director, Bureau of Economic and Business Research, 428 Commerce West, 1206 South Sixth Street, Champaign, Illinois, 61820.

Star Series Topics

Inductive knowledge acquisition for developing business systems

New product marketing

Defensive marketing strategies

International market segmentation

Marketing research

Real estate

Investments

International finance

Is Cash Flow the Bottom Line?

The Rise and Fall of Junk Bonds as a Financing Alternative

Managing Financial Institutions in a Period of Rapid Change

Internationalizing Business Education

What Are the Significant (Vital!) Issues for Business as We Enter the 90s?

Economic Issues of the Day--And Age

Managing, Japanese Style

Cost of Capital for Nonpublicly Traded Firms and Divisions

US-Latin American Economic Relations

The Latin American Debt Crisis

Current challenges to US foreign economic policies

Inflation in Latin America

Property taxes in Illinois

The business climate and economic development in the state

National tax policy issues

Coal markets

Acid rain regulation

The Economic Implications of this Culture in Transition

Europe 1992

China's development

Issues in Law and Economics

Problems in the airline industry since deregulation

Macroeconomic policy issues and events

US-Japanese relations

Comparative US-Japanese Management Systems

Illinois Business Statistics

The Illinois economy dropped sharply in early 1989 but recovered as the year progressed (Chart 1). However, last year's growth is not expected to continue. It is anticipated that growth in both the gross state product (GSP) and gross national product will have declined to 1.2 percent during the first quarter of this year and will increase only slightly thereafter. Factors contrib-

uting to this moderate forecast include higher interest rates and a rapidly appreciating dollar. By making US-made goods more expensive abroad and foreign goods less expensive domestically, a strong dollar could damage the Illinois economy. Illinois exports, which benefitted greatly from the depreciating dollar, rose nearly 20 percent in 1989.

Prices jumped 4.6 percent during the year ending December 1989 and have continued to move higher (Chart 2). Nearly all urban price indexes have increased since December. The increase can be attributed to higher costs for energy and food resulting from record cold temperatures. Rates of inflation are expected to moderate through the rest of 1990.

Forecast Statistics

Personal Income (millions of dollars, seasonally adjusted at annual rates)

	1989	1989:IV	1990:I*	1990:II	1990:III	1990:IV	1991:I	1991:II	1991:III	1991:IV
Total personal income	\$220,415	\$226,661	\$230,347	\$233,911	\$237,893	\$241,758	\$246,291	\$250,350	\$254,803	\$259,148
Total nonfarm	160,466	165,124	167,218	169,901	172,503	175,512	178,551	181,688	184,768	188,208
Total private nonfarm	140,528	144,351	146,137	148,480	150,794	153,391	156,110	158,879	161,642	164,651
Mining	961	1,010	1,049	1,052	1,053	1,056	1,059	1,059	1,059	1,059
Construction	9,744	9,841	10,084	10,187	10,312	10,492	10,744	10,867	11,020	11,234
Manufacturing	33,791	34,525	34,234	34,450	34,734	35,043	35,394	35,783	36,191	36,595
Durable	21,027	21,457	21,088	21,159	21,301	21,477	21,689	21,927	22,187	22,450
Nondurable	12,764	13,068	13,146	13,291	13,434	13,566	13,705	13,856	14,004	14,145
Transportation & public utilities	11,881	12,138	12,432	12,565	12,684	12,834	12,992	13,160	13,322	13,516
Wholesale trade	13,562	13,762	13,999	14,208	14,410	14,637	14,869	15,109	15,348	15,612
Retail trade	14,469	14,642	14,720	14,885	14,997	15,242	15,406	15,612	15,776	16,053
Finance, insurance, & real estate	14,153	14,941	15,197	15,565	15,933	16,304	16,688	17,087	17,490	17,892
Services	41,445	43,492	44,423	45,566	46,671	47,784	48,959	50,202	51,437	52,690
Government	19,939	20,773	21,080	21,422	21,708	22,121	22,441	22,809	23,126	23,557

Gross State Product (millions of dollars, seasonally adjusted at annual rates)

	1989	1989:IV*	1990:I	1990:II	1990:III	1990:IV	1991:I	1991:II	1991:III	1991:IV
Total	\$260,568	\$270,359	\$273,911	\$278,052	\$282,546	\$287,157	\$291,985	\$296,819	\$301,923	\$307,121
Total private nonagric.	233,077	241,797	245,056	248,856	252,981	257,216	261,651	266,095	270,789	275,570
Mining	1,531	1,301	1,350	1,316	1,277	1,249	1,228	1,197	1,170	1,144
Construction	11,100	11,245	11,370	11,538	11,739	11,968	12,115	12,291	12,494	12,726
Manufacturing	50,167	52,295	52,048	52,335	52,765	53,256	53,899	54,470	55,069	55,693
Durable	27,743	28,962	28,420	28,472	28,621	28,810	29,036	29,298	29,585	29,873
Nondurable	22,425	23,334	23,628	23,863	24,144	24,446	24,863	25,172	25,484	25,820
Transportation & public utilities	26,511	28,191	28,753	29,269	29,791	30,323	30,879	31,443	32,023	32,614
Wholesale trade	22,875	22,997	23,275	23,620	23,962	24,308	24,674	25,038	25,414	25,795
Retail trade	23,966	24,830	25,292	25,737	26,203	26,657	27,149	27,622	28,114	28,599
Finance, insurance, & real estate	47,926	49,603	50,526	51,360	52,214	53,118	54,100	55,076	56,100	57,150
Services	49,001	51,337	52,442	53,681	55,031	56,338	57,607	58,958	60,405	61,848
Government	23,022	23,612	23,847	24,267	24,527	24,850	25,095	25,536	25,824	26,187
Agriculture	4,469	4,950	5,008	4,930	5,037	5,091	5,239	5,189	5,311	5,364

*Forecast begins

Illinois Employment Forecast (in thousands, seasonally adjusted at annual rates)

	1989	1989:IV	1990:I*	1990:II	1990:III	1990:IV	1991:I	1991:II	1991:III	1991:IV
Total nonfarm employment	5,179.5	5,205.4	5,214.2	5,207.7	5,206.9	5,224.4	5,249.8	5,245.6	5,256.2	5,270.5
Total private nonfarm emp.	4,441.8	4,466.2	4,475.2	4,467.4	4,466.3	4,484.1	4,511.6	4,504.8	4,510.1	4,528.5
Mining	19.8	19.5	21.3	20.7	20.5	20.6	21.1	20.5	20.3	20.3
Construction	209.7	212.6	219.6	216.9	218.0	219.8	229.3	224.8	225.0	227.5
Manufacturing	981.5	982.0	955.0	946.8	942.0	939.0	938.5	936.3	934.8	934.3
Durable	598.3	598.3	578.3	572.5	569.7	568.5	568.6	568.4	568.9	569.8
Primary metals	56.3	56.0	53.9	52.8	52.3	52.1	51.8	51.6	51.6	51.7
Fabricated metals	107.2	106.8	102.7	102.6	102.3	102.2	102.1	101.5	101.3	101.2
Nonelectrical machinery	154.2	155.7	144.1	141.3	139.8	138.7	137.6	137.5	137.1	136.8
Electrical machinery	118.4	117.8	118.8	119.8	121.4	123.0	124.9	126.8	128.7	130.7
Nondurable	383.2	383.7	376.7	374.3	372.3	370.5	369.9	367.9	365.9	364.5
Food & kindred products	90.2	90.7	89.9	89.3	88.8	88.8	88.5	87.5	86.7	86.8
Printing & publishing	112.8	112.7	112.1	111.6	111.1	109.9	109.8	109.5	109.1	108.4
Chemicals & allied products	61.1	61.2	60.7	60.2	59.9	59.7	59.3	58.9	58.6	58.2
Transp. & pub. utilities	1,304.5	305.8	307.0	305.7	305.3	304.0	304.8	304.4	304.8	304.9
Wholesale trade	374.1	375.6	378.5	378.0	377.1	378.8	380.4	380.2	380.0	381.5
Retail trade	900.9	906.2	914.0	911.4	907.2	911.2	915.9	914.9	914.0	914.3
Finance, ins., & real estate	372.4	374.6	377.6	378.4	379.5	383.8	385.4	385.6	386.1	388.5
Services	1,279.0	1,290.0	1,302.4	1,309.6	1,316.7	1,327.1	1,336.1	1,338.2	1,345.2	1,357.2
Government	737.7	739.2	739.0	740.3	740.6	740.3	738.2	740.9	746.1	742.1

*Forecast begins.

Chart 1. Growth of GNP and GSP (at annual rates)

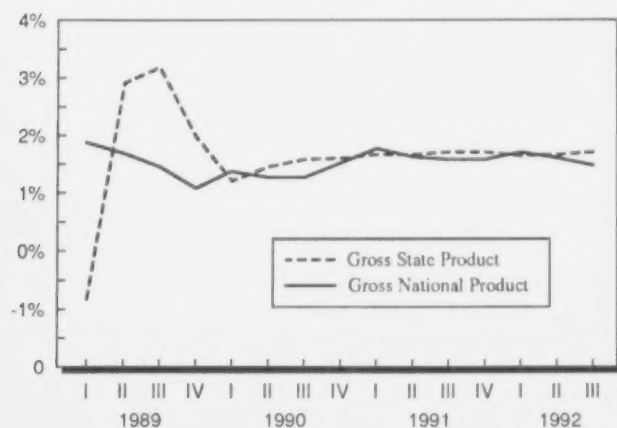
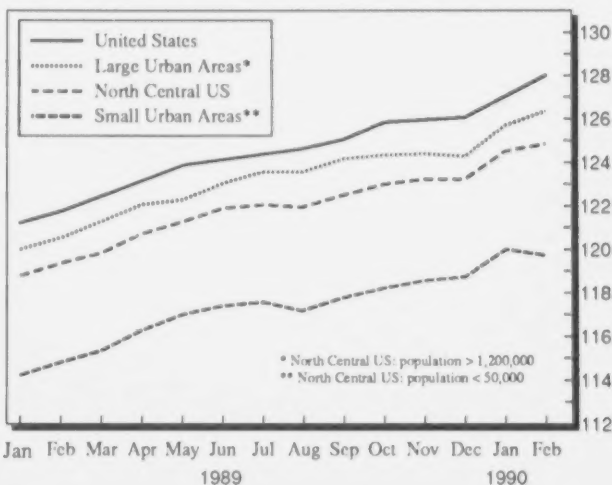


Chart 2. Selected Urban Price Indexes (1982-1984=100)



Historical Statistics

	% Change Jan. 1989 Jan. 1990	Jan. 1990	Dec. 1989	Nov. 1989	Oct. 1989	Sept. 1989	Aug. 1989	Jan. 1989
Building permits (thousands)								
Residential housing units	2.43	1,643	1,432	2,408	3,093	3,583	3,973	1,604
Value of residential units	36.34	\$223,737	\$190,536	\$282,081	\$384,805	\$317,723	\$345,958	\$164,107
Value of nonresidential housing								
Industrial buildings	-47.51	\$20,819	\$36,222	\$32,883	\$24,234	\$30,098	\$54,696	\$39,663
Office, banks, and professional buildings	14.48	\$31,828	\$19,817	\$33,361	\$62,069	\$60,508	\$91,753	\$27,802
Stores and other mercantile buildings	39.40	\$37,636	\$75,891	\$32,009	\$45,440	\$79,991	\$36,933	\$26,998
Other	22.49	\$4,668	\$2,354	\$7,065	\$7,272	\$4,459	\$10,094	\$3,811
Consumer price index (1982-1984=100)								
North Central US	4.89	124.5	123.2	123.2	123.0	122.5	122.0	118.7
North Central/pop. more than 1,200,000	4.92	125.7	124.3	124.4	124.3	124.1	123.5	119.8
North Central/pop. 360,000-1,200,000	4.99	124.2	123.0	123.0	122.0	121.0	120.9	118.3
North Central/pop. 50,000	4.88	124.6	123.2	123.3	122.9	122.2	122.1	118.8
North Central/pop. less than 50,000	4.90	120.0	118.8	118.6	118.2	117.8	117.1	114.4
Chicago	5.43	128.1	126.5	126.7	126.8	127.1	126.4	121.5
St. Louis	5.66	125.1	—	123.1	—	123.9	—	118.4

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Perspectives on the Economy

Economic activity has weakened in 1990, continuing a moderation that began more than a year earlier. The slowdown in the economy has been reflected in most major measures of activity. The growth in real output has fallen; job growth has declined; housing markets have slumped; and household spending has weakened. Whereas the unemployment rate drifted downward from the end of 1982 to early 1989, it has since stabilized.

It may be premature to conclude that the current expansion is at an end, but it is timely to look back and evaluate some of our past economic achievements and disappointments. In particular, it is of interest to draw comparisons between the decade just ended and the decade of the 1970s because of the substantial differences in perceptions regarding the two decades. There is a widely held view that economic growth in the 1980s was robust, benefiting from the supply-side initiatives of the Reagan administration. In contrast, we recall that the 1970s were characterized by stagflation and economic malaise.

Major Indicators

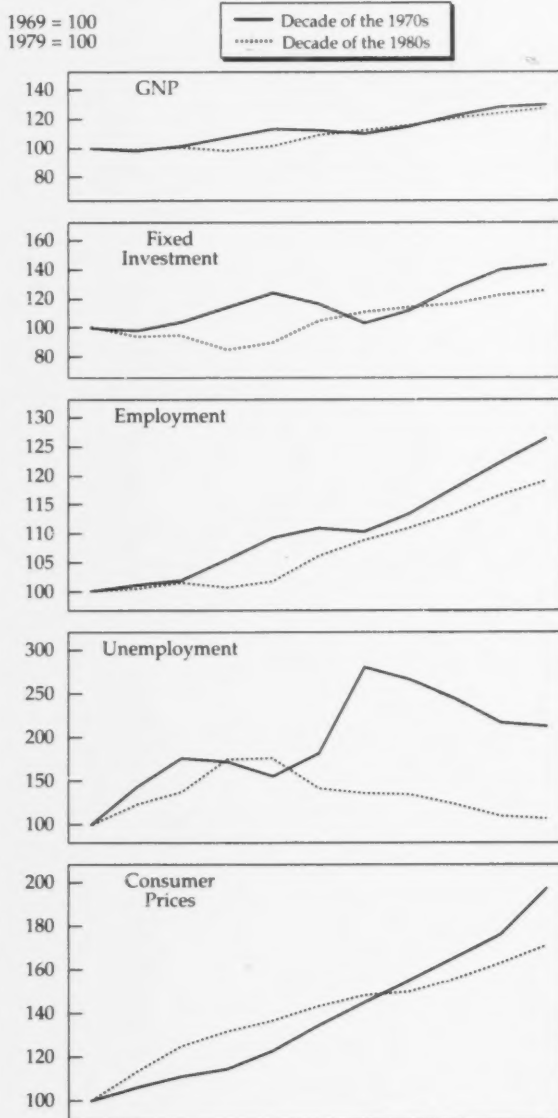
The performance of the economy may be evaluated both in terms of the achievement of positive outcomes and the avoidance of negative ones. On the positive side, the creation of real output, the growth of fixed investment, and job creation may be regarded as primary goals of the economy. Looking toward the avoidance of negative outcomes, we may focus on the ability of the economy to avoid such unwanted develop-

ments as unemployment and inflation. These positive and negative indicators of economic performance are shown in Table 1 and Chart 1.

A cursory glance at Table 1 or Chart 1 suggests that the two decades were reasonably similar. That finding is a story in and of itself. For, such an interpretation differs substantially from widely held perceptions. It is reasonably clear from the data that economic developments during the 1970s were stronger than is popularly believed. Growth rates in real gross national product (GNP), fixed investment, and employment were greater in the decade of the 1970s than during the 1980s. The economic miracle of the 1980s must be found somewhere else, if at all.

There are two chief differences between developments during the 1980s and those in the 1970s. First, the

Chart 1. Major Indicators of the Economy



rate of inflation was markedly lower in the past decade (see lowest tier of Chart 1). Although prices continued to rise during the 1980s, after the first several

Table 1. Performance Comparisons

Main Indicators	Decades	
	1980s	1970s
	(annual rates of growth)	
Real GNP	2.6	2.8
Fixed investment	2.3	3.8
Employment growth	1.7	2.4
Unemployment growth	0.6	8.0
Consumer Price Index	5.5	7.1

years inflation rates moderated. Second, labor markets weakened during the mid-1970s with the number unemployed rising at an 8 percent annual rate. Unemployment again moved higher in the early 1980s. Even so, joblessness generally decreased. Although a great deal of attention is paid to the number of jobs added during the Reagan-Bush administration, employment actually grew more rapidly in the 1970s.

Demand and Supply Shifts

One way of looking at developments relating to the economy is to attempt to distinguish among the various sources of demand and supply. Unhappily, the data emerge from market activities involving demand and supply shifts coupled with price movements (including exchange rate changes). What is observed are takings from markets. Consequently, in such backward-looking attempts at analysis it is easy to become confused between causes and results.

One way of viewing purchases is to identify what may be referred to as final demand, eliminating intermediate or temporary demand

Table 2. Alternative Sources of Demand

	Decades	
	1980s	1970s
Final demand	2.6	2.9
Domestic demand	2.8	2.6
Federal demand	3.6	-1.3
Government demand	2.8	0.6
Imports	6.2	5.9
Exports	5.1	8.0

such as that relating to the accumulation of business inventories. Final demand expanded at a 2.9 percent annual rate during the 1970s, little different from, but somewhat stronger than, the 2.6 percent rates in the 1980s (Table 2).

Another perspective is given by focusing on the generation of domestic demand

without regard to the means by which that demand was satisfied. In terms of raw numbers, real domestic demand strengthened to a 2.8 percent annual rate of growth in the 1980s compared with a 2.6 percent rate in the 1970s. But such a small difference is consistent with the view that there was no meaningful change in domestic demand.

Yet another perspective emerges from the identification of public, or government, demand rather than private demand. Presumably, the government is less sensitive to price changes than is the private sector. One of the hallmarks of the Reagan Administration was its commitment to cut the growth in the economic role of the federal government. As it turns out, real federal purchases of goods and services (the portion of total federal expenditures entering the spending side of the GNP accounts) expanded at a 3.6 percent annual rate in the 1980s. Such purchases had actually declined in the 1970s following the end of the Viet Nam War (see Table 2). Adding state and local governments, total government purchases of goods and services rose very slowly during the 1970s (registering a 0.6 percent annual rate of increase). But during the 1980s, total government spending on goods and services expanded at a 2.8 percent annual rate.

Although it is unclear whether aggregate demand changed from the 1970s to the 1980s, it is clear that there was a shift away from domestic production. Imports satisfied a somewhat greater share of aggregate demand during the 1980s than

in the preceding decade. During the 1970s imports rose at a 5.9 percent annual rate, then increased to a 6.2 percent rate during the 1980s. Coupled with the minor redirection of domestic demand from the US economy was a diminution of foreign demand. Exports expanded at an 8 percent annual rate in the 1970s, but at only a 5.1 percent rate during the 1980s (Table 2).

Economic Policy

In looking back, it is plausible to suppose that economic developments may have been shaped to some extent by monetary and fiscal policies. Certainly, the political parties are quick to claim and quick to blame. Each party claims credit for every real or imagined benefit and blames the other for every adverse development. Can we account for the moderation in inflation during the 1980s by a clear change in economic policy?

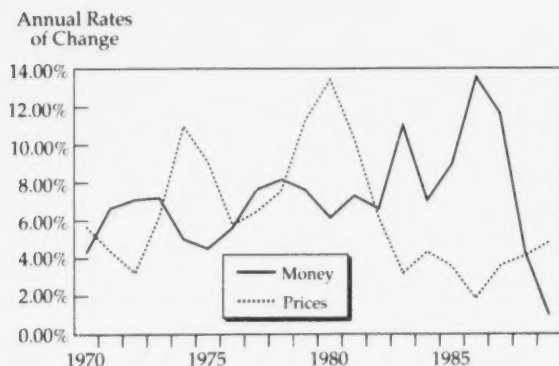
Even as the question is raised, bits and pieces of doctrinal positions and disputes come to mind. I am reminded of the view that inflation is a monetary phenomenon. As it turns out, an examination of monetary data reveals neither major differences nor differences that would explain the changed rate of inflation. As Table 3 indicates, the nominal money stock (M1) grew

Table 3. Economic Policy Variables

Monetary Indicators	Decades	
	1980s	1970s
M1	7.7	6.6
M2	8.0	10.0
M3	8.7	11.5
Fiscal Indicators		
Expenditures	3.8	2.0
Receipts	2.7	1.3

more rapidly in the 1980s than in the 1970s (7.7 percent compared with 6.6 percent). Such shifts are inconsistent with the observed change in inflation rates. Moreover, the timing of rapid money supply

Chart 2. Money Supply Growth and Inflation



growth was out of phase with the 1973-1975 and 1978-1980 accelerations in inflation (see Chart 2). As money supply measures are broadened to include additional financial instruments (for example, M2 and M3), it turns out that monetary growth rates in the 1970s exceeded those of the 1980s. Such shifts are consistent with the direction of change in rates of inflation. But acceleration and decelerations in growth rates in those monetary aggregates are also out of phase with shifts in inflation.

In order to explain the acceleration in inflation in the second half of the 1970s on the basis of monetary considerations, it would be possible to argue that there are dynamic processes at work, creating variable lags between changes in monetary growth and changes in inflation. Alternatively, it might be argued that other factors caused the public's demand for money to fall relative to the supply. Such an explanation could suggest that there were spasmodic diminutions in the public's demand for real money balances during the 1970s. Although such arguments can be made, their articulation is beyond the scope of this article.

Was there a meaningful fiscal policy shift? It can be argued that fiscal developments tended to offset one another in their impact during the 1980s. The rate of growth in federal expenditures rose from 2

from 1.3 percent to 2.7 percent (Table 3). One might argue that such developments are restrictive, or reflect restrictive tax changes.

To some extent, fiscal developments are themselves a reflection of shifts in the underlying economy and cannot be viewed wholly as independent causal agents. But even if this were not the case, there is a missing link between the fiscal restrictions and the reduced rate of inflation. Fiscal developments exert their influence by affecting aggregate demand. As suggested, there are no meaningful differences between the rates of growth in real product, nor any of the other measures of demand, during the two decades. That is, the final takings from the markets were about the same; but during the 1980s these takings occurred within a milieu of smaller price increases.

The most widely held explanation of accelerated inflation in the 1970s relies upon supply shocks. It is quite true that energy prices were driven sharply higher by OPEC in 1974 and again in 1979. Presumably, as a result of the shift in relative

percent in the 1970s to 3.8 percent in the decade just ended. Presumably such developments would serve to expand aggregate demand. At the same time, the rate of growth in federal receipts more than doubled,

prices, upward price pressures were set into motion throughout the economy. Although this view has substantial common sense appeal, it does not agree well with economic theory in the context of the specific accompanying monetary environment.

We are left without a fully satisfactory explanation for differential rates of inflation in the two decades under review.

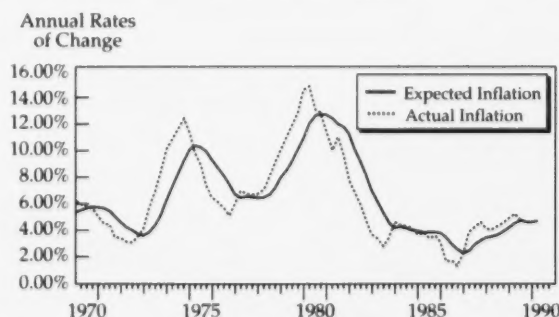
Economic Problems

Year in and year out, there is a limited menu of economic problems that occupies the attention of the public and of politicians. Moreover, the menu seldom changes. The perennial problems have been inflation, high interest rates, unemployment, and the federal deficit. In recent years, the persistent international trade deficit has been added to the litany of concerns. It is of interest to review the past two decades in terms of these problems.

Inflation began moving higher again in the late 1980s and into early 1990. Chart 3 shows the actual rate of inflation during the 1970-1990 period (year-over-year percent changes in quarterly values of the Consumer Price Index).

There is a view that the public generates expectations regarding inflation. Also shown in Chart 3 is a representation of expected inflation (a weighted 8-quarter moving average). According to this representation, expected inflation rises and

Chart 3. Actual Inflation and Expected Inflation



declines more slowly than actual inflation.

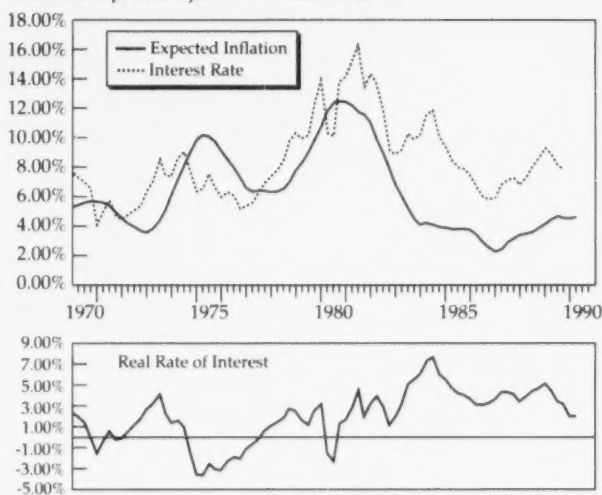
It is noteworthy that expected inflation has been moving higher in 1990. In view of the fact that its current values are based on the past, expected inflation will rise throughout the remainder of the year. Even though actual rates of inflation were moderating at this writing, expected inflation will be virtually unaffected by such developments in the short run.

There is a view that the nominal rate of interest is the product of the real rate of interest and expected inflation. Chart 4 shows the expected inflation data from Chart 3 along with the yield on one-year US securities. The lower tier of Chart 4 shows an estimate of the real rates of interest (the nominal rate less expected inflation). According to this representation, real interest rates fluctuated around zero during the 1970s and into the early 1980s, then rose sharply from 1982 through 1984. Although real rates have drifted lower since late 1984, they have not fallen below 3.0 percent.

The recent and current upward movements in expected inflation suggest that interest rates are likely to move higher. Such a view is inconsistent with typical developments during a period of economic weakness. As the economy weakens, real rates of interest fall. Indeed, it can be argued that declines in anticipated rates of return on prospective investment outlays are an aspect of economic weakness.

Concerns about the federal deficit are perennial. Without a doubt, the federal deficit has risen persistently during the past two decades (Chart 5). Stating the deficit in real terms (1982 dollars), it fluctuated between a low of \$12.1 billion in 1973 and a high of \$121.4 billion in

Chart 4. Expected Inflation and Interest Rates



1975, averaging \$50.7 billion during the 1970s and \$54 billion in the 12 years ending in 1981. After 1982 the deficit rose markedly (see Chart 5), then fluctuated between a low of \$125.1 billion in 1989 and a high of \$188.6 billion in 1986. A comparison of the average of the 1970-1981 period with the average of the 1982-1989 period, indicates that the deficit tripled (even stated in constant dollars).

A less dramatic interpretation emerges if the size of the deficit is adjusted to the size of government operations. The lower tier of Chart 5 shows the deficit as a percent of federal expenditures. By this measure, the deficit averaged 8.3 percent of the budget in the 12 years ending in 1981 and 17.4

percent in the 1982-1989 period. Looked at in this way, the deficit more than doubled after 1981. While this too represents a substantial growth in the federal deficit, it is meaningfully smaller than suggested by dollar figures.

Similarly, there has been an increase in the nation's real current account deficit in international trade. If measured in terms of dollars, even held at constant value (see upper tier of Chart 6), the growth in the deficit is substantial.

During the decade of the 1970s and through 1983, the real current account registered seven surpluses (the largest being \$57 billion in 1980) and six deficits (the largest being \$49.4 billion in 1972). On average over the fourteen-year period the deficit averaged \$0.6 billion. But in the 1984-1989 period, there were no surpluses, and the real deficit averaged just over \$94 billion.

It is of interest to review the same time periods but with data

Chart 5. Federal Deficits

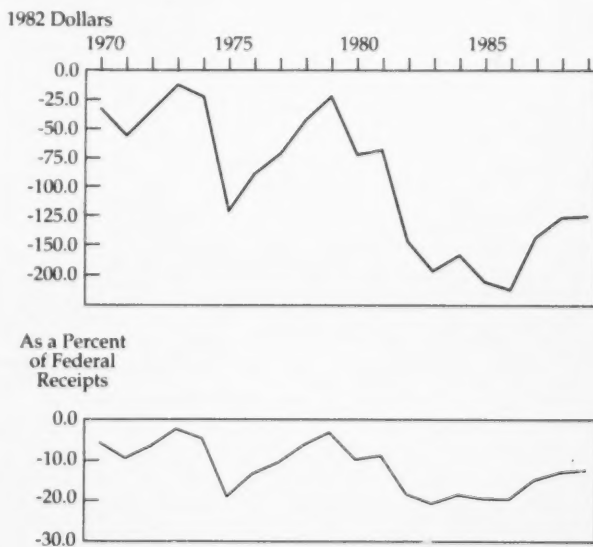
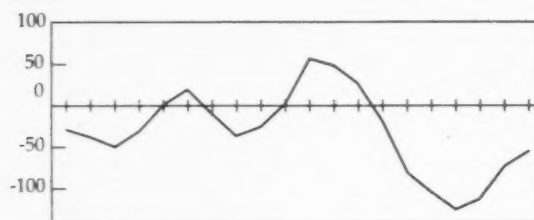
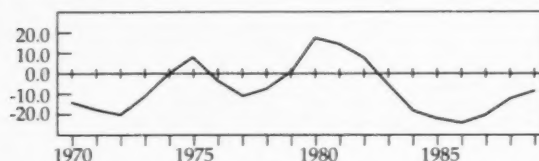


Chart 6. International Trade Deficits

Billions of 1982
Dollars



Surplus or Deficit
as a Percent of Exports



arranged differently. Expressed as a percent of exports, the deficit averaged 3.2 percent during the 1970-1983 period, and 17.8 percent in the 1984-1989 period. Hence, that part of the picture remained qualitatively unchanged: because there have been no surpluses, there has been a substantial increase in the average current account deficit. But other parts of the picture are markedly different. The magnitude of the fluctuations has remained substantially unchanged over the two decades. Recent deficits are not larger than earlier ones.

We sometimes forget that the unemployment rate has been below 5 percent. In fact, in 1969 unemployment averaged 3.5 percent of the labor force. But the mild slumps in the early 1970s coupled with the sharp 1973-1975 recession drove unemployment to an 8.5 percent average in 1975. The slow growth in unemployment during the 1980s (summarized in Table 1) is partly an illusion. Unemployment was relatively high as the decade opened, and although it fell during the 1980s, by 1989 the unemployment rate had declined only to 5.3 percent, well above its level two decades earlier.

The higher unemployment rate

is partially explained by pointing to the increase in participation rates. There has been a persistent and substantial rise in the rate at which the working-age population has chosen to participate in the labor force. Throughout the 1950s and 1960s, the participation rate was relatively

stable, remaining at or just under 60 percent. But participation rates began edging higher during the 1970s and continued to move up during the 1980s, registering decade-long increases of 6 percent and 4.5 percent, respectively.

Labor force shifts are an important aspect of developments relating to household income. Per capita income rose on balance in the 1970s and 1980s. It is important to note that these increases were made possible, in part, by the rising participation rates. Indeed, the increased participation rates, chiefly resulting from a movement of women into the work force, may be viewed as an adjustment of households to economic forces that would otherwise have driven their incomes lower. Even after making a rough adjustment for changes in participation rates, real per capita income would have risen over the past two decades. But the growth would have been cut by about one-fourth.

Concluding Remarks

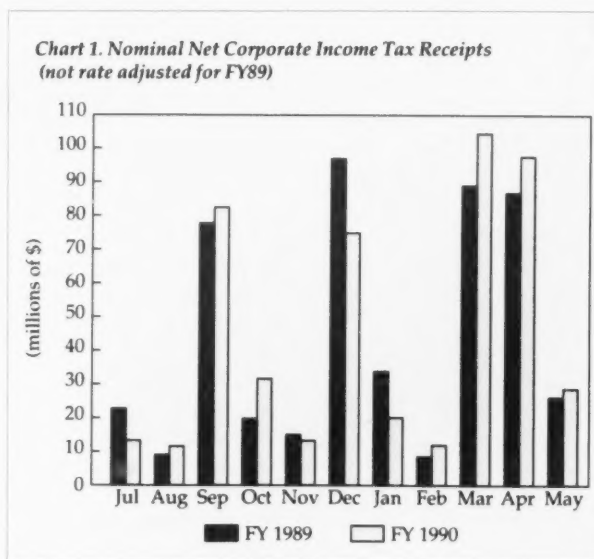
As 1990 unfolds, I anticipate that the economy will weaken, unemployment will rise, inflation and interest rates will decline, the federal deficit will rise, and the

international trade deficit will fall. There is no reason to suppose that any of these developments will constitute a marked departure from the experience of the past two decades. These shifts are part of what is typically referred to as a cyclical process. At the same time, there is very little regularity in this process, nor does the process carry with it elements of inevitability. Rather, it is simply a fact that the economy does not expand evenly. It tends to move in fits and starts.

The State of the State from a Tax Revenue Perspective

Developments relating to tax revenues can reveal information about the strength or weakness of the economy. If current year receipts appropriately adjusted for changes in tax laws and inflation depart from the previous year's receipts, the departure must relate to a corresponding change in the real base upon which the tax revenues are collected. For example, adjusted personal income tax receipts for the state of Illinois are lower in fiscal year 1990 (FY90)¹ than in FY89. Such a shortfall implies that there has been a decline in personal income, the base upon which the receipts are levied. Changes in individual tax receipts, therefore, provide strong signals about the performance of certain sectors of the economy. Moreover, because tax receipts in Illinois are published on a monthly basis, the information they provide is relatively up-to-date.

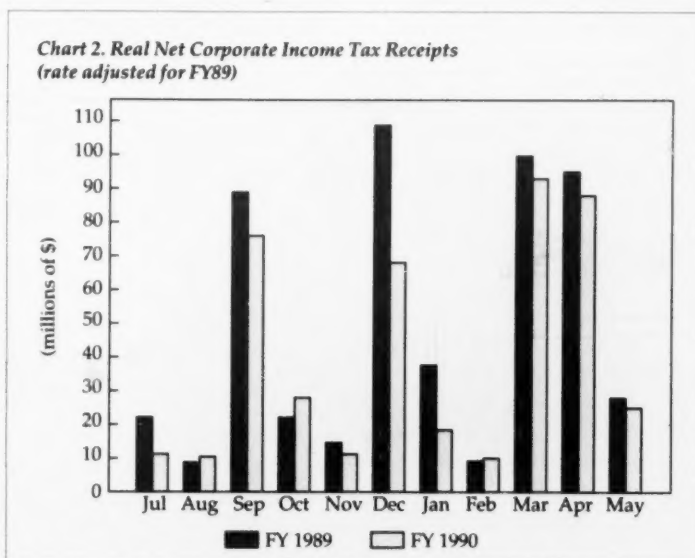
True changes in the tax base can be inferred from changes in tax receipts only if tax rates and other factors are directly comparable. To achieve comparability between FY89 and FY90 receipts, FY89 Illinois corporate and personal income tax receipts were artificially inflated to account for the 20 percent increase in tax rates implemented in FY90. The corporate income tax rate was increased from 4.0 to 4.8 percent, while the personal income tax rate was raised from 2.5 to 3.0 percent, both effective July 1, 1989. In addition, FY89 net tax receipts were adjusted for the accounting changes that occurred in FY90. In FY89, an Income Tax Refund Fund was created in order to pay tax refunds to corporations and individual filers. Whereas 18 percent of



gross corporate income tax receipts was allocated to the newly established Income Tax Refund Fund in FY89, the amount diverted to this fund in FY90 was increased to 20.1 percent. Similarly, 6 percent of gross personal income tax receipts was diverted to the Refund Fund in FY89, compared to a 6.4 percent diversion in FY90. Finally, in FY90 5.9 percent of corporate and personal income tax receipts was deposited in the Income

changes, low receipts in FY90 might have been attributed to a declining tax base.

¹The State of Illinois fiscal year runs from July 1 to June 30 of the subsequent calendar year; that is, FY90 ends on June 30, 1990.



Tax Surcharge Local Government Distributive Fund to be allocated among Illinois counties and municipalities for aid to local governments. FY89 net tax receipts were artificially decreased to reflect the greater amount of gross receipts diverted in FY90. If FY89 receipts had not been adjusted for these accounting

Chart 3. Before Tax Corporate Profits
(seasonally adjusted at annual rates)

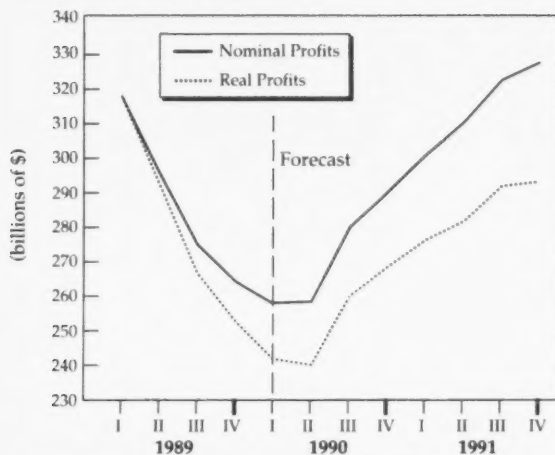
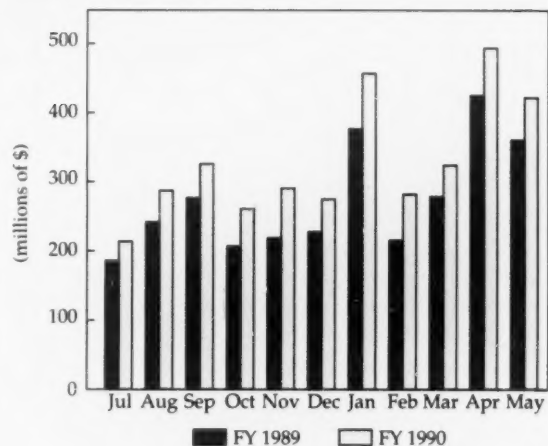


Chart 4. Nominal Net Personal Income Tax Receipts
(not rate adjusted for FY89)



Corporate Income Tax

If FY89 net corporate income tax receipts in Illinois are not adjusted for rate increases and inflation, FY90 receipts are greater than the previous year's receipts in 7 of the first 11 months of the fiscal year (see Chart 1). However, FY90 nominal net corporate income tax revenues were approximately 16 percent lower than rate-adjusted FY89 revenues. With a 5 percent rate of inflation in FY90, it can be inferred that there was a 21 percent decline in the real corporate income tax base (consisting of the adjusted taxable income of corporations, associations, joint-stock companies, and cooperatives). FY90 net corporate income tax receipts adjusted for inflation fell short of real rate-adjusted FY89 receipts in every month except August, October, and February—all relatively low receipt months (see Chart 2). Developments in Illinois are consistent with falling national corporate profits over the past fiscal year (see Chart 3). The 20 percent tax rate increase prevented a

real decline in corporate income tax receipts this past year.

Based on Data Resources, Inc., (DRI) projections of future corporate profits, the Bureau of Economic and Business Research at the University of Illinois, Urbana-Champaign (BEBR) predicts that corporate profits will rebound to 1989 levels in FY91. Even so, such revenues imply a shortage for the state of Illinois in FY91 since FY90 state expenditures did not fall to match the decrease in tax receipts.

Personal Income Tax

Personal income tax receipts performed somewhat better than corporate income tax revenues. In terms of raw tax dollars, personal income tax revenues were 21 percent higher than in the previous year. FY90 receipts were greater than unadjusted FY89 receipts in all 11 months of the fiscal year (see Chart 4). After adjusting for both rate and accounting changes, however, nominal net personal income tax receipts were essentially unchanged from their year-earlier pace. This means that the personal

income tax base (consisting of the adjusted taxable income of individuals, trusts, and estates) expanded only marginally in FY90 and did not keep pace with the 5 percent rate of inflation (see Chart 5). Personal income tax receipts mirrored the Illinois economy, shown by the downward trend in Illinois real personal income over most of FY90 (see Chart 6).

The BEBR forecast for FY91 indicates that personal income tax

Chart 5. Real Net Personal Income Tax Receipts
(rate adjusted for FY89)

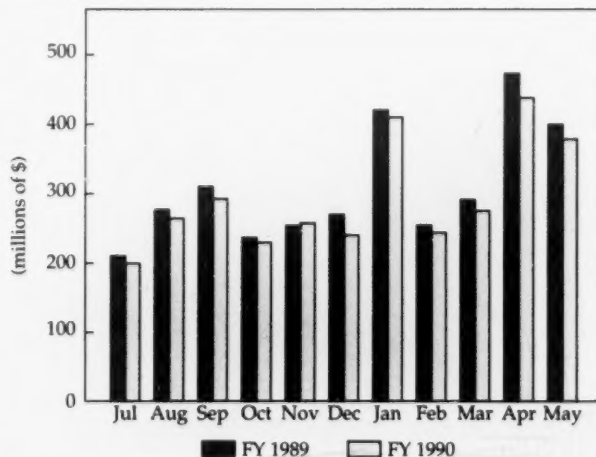
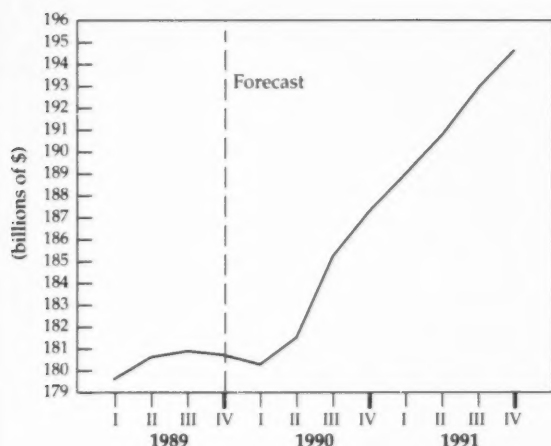


Chart 6. Real Illinois Personal Income



revenues will rise by about 6 percent. The increase reflects real growth in the state economy of approximately 2 percent, plus a 4 percent rate of inflation over the next fiscal year.

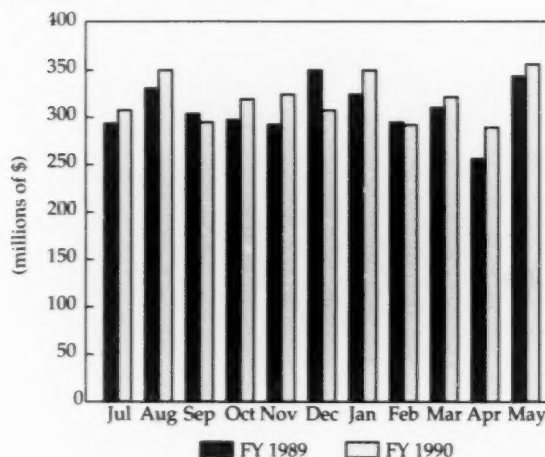
Retail Sales Tax

Nominal retail sales taxes in FY90, levied mainly on the gross receipts of Illinois retail sellers after exemptions for such items as food, medicine, and most services, increased by 3.5 percent over the previous year. FY90 receipts were greater in every month except September, December, and February (see Chart 7). However, as in the case of gross corporate and personal income tax receipts, a portion of gross retail sales taxes are allocated to special state funds. In FY89, these diversions amounted to 4.35 percent of gross receipts. The allocation to one of these funds, the Build Illinois Fund, was increased from 2.2 percent to 3.8 percent in FY90, raising the total retail sales tax diversion to 5.95 percent of gross

receipts. Accordingly, FY90 nominal net retail sales tax receipts were actually greater by 5.3 percent over adjusted FY89 receipts, indicating an expansion of the retail sales tax base. Part of this growth resulted from the inclusion of computer software in the base, effective as of July 1, 1989. The other component consisted of an upward trend in nominal retail sales, mostly in the durable sales sector of the Illinois economy (see Chart 8).

BEBR predicts that FY91 retail sales tax receipts will increase by the nominal rate of growth.

Chart 7. Nominal Net Retail Sales Tax Receipts (unadjusted for Build Illinois Fund diversions)

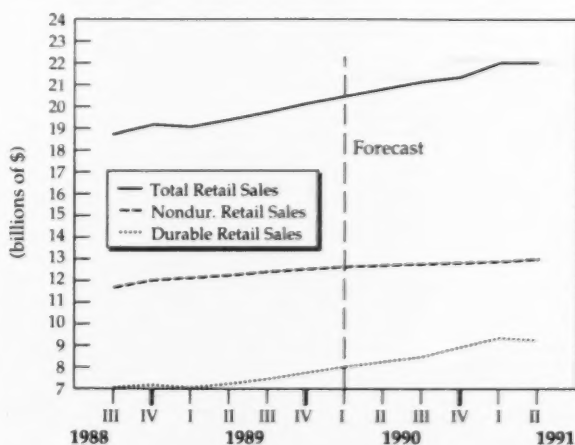


However, net sales tax receipts will grow by a smaller amount if Build Illinois Fund diversions are again raised, from 3.8 percent to 4.3 percent, as proposed by Governor James Thompson.

Other State Taxes

A majority of the other Illinois taxes produced a greater amount of revenue in FY90. After adjusting for various accounting changes, the public utilities, liquor, corporate franchise, inheritance, and other miscellaneous taxes increased FY90 nominal receipts by an average of 7.7 percent, outdistancing the rate of inflation over the period. Investment income, the product of market interest rates and the amount of state funds available for investment, produced 18 percent more revenue for the state in the first 11 months of FY90. Interest rates over that period were relatively high, as were the state's available balances. In contrast, both the cigarette tax and the insurance tax bases shrank during FY90. The approximately 38 percent increase in nominal cigarette tax receipts resulted

Chart 8. Total Illinois Retail Sales



from a 50 percent increase in the cigarette tax rate, effective July 1, 1989. Cigarette sales have consistently declined over the past few years, as evidenced by the 8 percent decrease in the cigarette tax base in FY90. FY90 lottery receipts were also 1.3 percent lower.

Total Tax Receipts

Total tax receipts for FY90 were only 1.8 percent greater than FY89 receipts, after adjusting for all rate and accounting changes. The overall Illinois tax base did not expand sufficiently to match the rate of inflation. Without the tax increases implemented in FY90, the state's

fiscal condition would have been much worse than it is. Although the major shortage in FY90 revenues came from low corporate profits, the slow growth in the overall Illinois tax base will present the state with difficult choices in the coming fiscal years.

Ownership of the US Federal Debt

The Federal debt consists of securities issued by the US Treasury (referred to as public debt securities) plus those issued by other Federal agencies. At the end of March 1990, the Federal debt had reached \$3.1 trillion, 11.5 percent higher than one year earlier. Public debt securities make up more than 99 percent of the outstanding Federal debt.

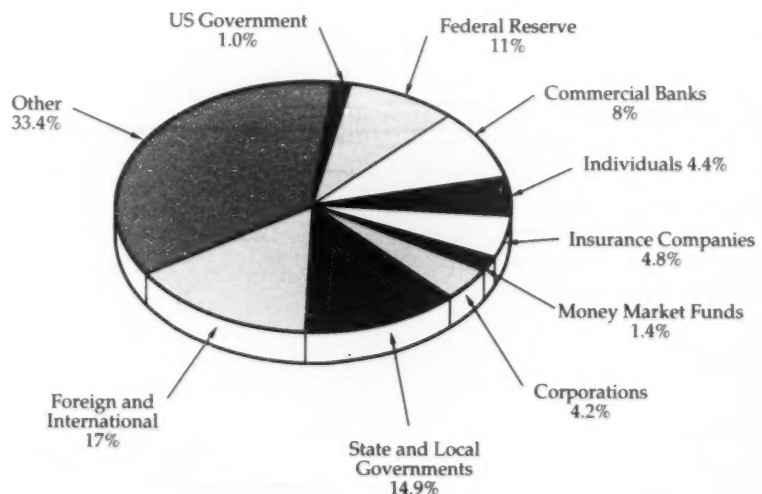
A small portion of the debt (\$52.4 billion) has matured and is no longer bearing interest. More than \$1 trillion of the public debt is not marketable. Rather, it is simply held, awaiting maturity. The bulk of the nonmarketable debt consists of issues held by various government accounts (the largest of which are the Federal employees retirement funds, the Federal old-age and survivors insurance trust fund, and the Federal hospital insurance trust fund), and US savings bonds.

Our chief interest attaches to that portion of the public debt that is interest bearing and is marketable. Within this portion, there is a periodic focus of attention on ownership. Foreigners own 17 percent of the public debt, according to estimates based on what we know about the investment of foreign balances and international accounts in the US. According to the accom-

panying chart, foreign ownership represents the largest readily identifiable group, although the published data show that other investors hold 33.4 percent of the debt. Included among other investors are savings and loan associations, credit unions, nonprofit institutions, mutual savings banks, and

corporate pension trust funds. It is of interest to note that state and local governments are major holders of US Treasury debt; the chief investing units in this category are the state and local pension funds.

*Ownership of Public Debt
March 1990*



Recent Trends in First Class Stamp Prices

The recent announcement by the US Postal Service regarding its intention to increase the cost of a first class postage stamp from 25¢ to 30¢ has received widespread attention. Concern over the proposed price increase has been expressed by individuals in both the public and private sectors. Given the public's concern over this issue, it seems fair to ask whether the increases in first class stamp prices have been reasonable.

How Have Stamp Prices Changed?

Table 1 shows the annual percentage increases of end-of-year first class stamp prices since 1968. The bottom row of the table is calculated under the presumption that the 30¢ price will be in effect by the end of 1990. An example can aid in interpreting these figures. If one takes the 1968 year-end price of 6¢ as a base (that is, uses the 1968 column), stamp prices grew at an annual rate of 10.06 percent through year-end 1971, 8.89 percent through year-end 1974, and 11.68 percent through year-end 1975. Alternatively, if one looks across the 1990 row in Table 1, one can observe the potential annual percentage increases in first class stamp prices that will occur by year-end 1990. For example, by the end of the year, the price of a first class stamp will have grown annually at 7.59 percent since December 1968, 5.73 percent since December 1975, and by 9.54 percent since December 1988.

Real Stamp Price Increases?

Although fears of double-digit

inflation have subsided recently, the inflationary impact of the 1970s and 1980s was significant. Table 2 adjusts the annual percentage price changes in Table 1 for changes in the Consumer Price Index. The rates in Table 2 provide an interesting contrast to their counterparts in Table 1. If one selects either the 1968, 1971, 1974, or 1985 prices as a base, the various real (inflation-adjusted) annual price increases have been almost universally positive. In contrast, for the 1975, 1978, and 1981 base price, real stamp

prices have actually declined. At times this represents real price decreases as well as increases. Finally for the 1978 year-end base price, real stamp prices have actually gone down.

Ability (Willingness?) to Pay

Given this general trend of real price increases for first class stamps, one can reasonably ask why individuals have not reacted more strongly. It appears that the political and economic pressures

Table 1. Annual Nominal Percentage Increases in First Class Postage Stamp Prices

Year	1968	1971	1974	1975	1978	1981	1985	1988	1st Class Stamps
1968									6¢
1971	10.06								8¢
1974	8.89	7.72							10¢
1975	11.68	12.91	30.00						13¢
1978	9.60	9.40	10.67	4.89					15¢
1981	9.70	9.60	10.41	7.44	10.06				20¢
1985	7.94	7.49	7.43	5.40	5.62	2.41			22¢
1988	7.40	6.93	6.76	5.16	5.24	3.24	4.35		25¢
1990	7.59	7.20	7.11	5.73	5.95	4.61	6.40	9.54	30¢

Source: 1989 Economic Report of the President

Table 2. Annual Real Percentage Increases in First Class Postage Stamp Prices

Year	1968	1971	1974	1975	1978	1981	1985
1971	4.88						
1974	2.91	0.95					
1975	5.26	5.55	20.87				
1978	3.12	2.36	3.43	-1.73			
1981	2.04	1.18	1.28	-1.69	-1.65		
1985	1.08	0.26	0.08	-1.78	-1.80	-1.90	
1988	1.09	0.42	0.31	-1.09	-0.90	-0.60	1.14

Source: 1989 Statistical Abstract of the United States and 1990 Economic Report of the President

brought on by these rate increases have been inadequate to get the Congress to act. First, members of Congress have "free" mail and are, in large part, insulated from these postal price changes. Second, the direct impact of a real increase in postage rates has a relatively minor impact on the typical family's budget. As a consequence, there is little incentive for individuals to lobby against postal rate increases. By contrast, organizations that rely heavily upon third class postage, that is "bulk mailers," do have an increasingly strong set of economic incentives to lobby for favorable third class rates. Third class mail volume has increased dramatically compared with first class volume. For example in 1970 the US Postal Service delivered 50.174 and 19.974 billion pieces of first and third class mail, respectively. For 1987, these figures had risen to 78.933 and 59.734 billion for annual percentage increases of 2.7 percent for first and 6.7 percent for third class mail.

In addition to these factors, a powerful set of economic forces have tended to dampen the public's reaction to recent increases in postal rates.

Table 4. Increases in First Class Postage Stamp Price Versus Per Capita Disposable Income

Year	1968	1971	1974	1975	1978	1981	1985
1971	-2.88						
1974	-0.75	1.37					
1975	-3.43	-3.84	-21.02				
1978	-0.94	-0.10	-1.21	4.73			
1981	-0.77	-0.13	-0.77	2.30	-0.19		
1985	0.40	1.10	1.03	3.01	2.27	4.02	
1988	0.59	1.19	1.16	2.68	2.07	3.00	1.85

Source: 1989 Statistical Abstract of the United States and 1990 Economic Report of the President

increases in first class stamp prices by a considerable margin.

Table 4 compares the changes in the price of first class stamps with changes in per capita disposable income. By subtracting the percentage changes in stamp prices (Table 1) from the percentage changes in disposable income (Table 3), Table 4 shows when (and by how much) stamp prices have risen faster (or slower) than disposable income. If the figure in Table 4 is negative, stamp prices rose faster than per capita disposable income; if the figure is positive, income rose faster than stamp prices.

For example the ratio or the cost

that the increases in postal rates was 21.02 percentage points bigger than the corresponding increase in per capita disposal income. While stamp price increases tended to exceed changes in per capita disposable income during the late 1960s and early 1970s, since then postal rates have lagged behind increases in US per capita disposable income. By raw count, 16 of 28 entries in Table 4 are positive, indicating that income growth exceeded stamp price increases. The divergences between income growth and stamp price increases are even more dramatic if one considers the dollar magnitude of a typical family's disposable income relative to its direct expenditures for first class stamps.

Will the 30¢ stamp be a reality? Almost certainly. According to the St. Louis Federal Reserve, aggregate disposable income has grown at an annual rate of 8.1 percent from January 1988 through April 1990. If this trend in income growth continues, we can "afford" 30¢ stamps. Further, the direct per capita dollar magnitude of the increase is relatively small.

Table 3. Annual Percentage Increases in Per Capita Disposable Income

Year	1968	1971	1974	1975	1978	1981	1985	Disposable Income
1968								\$3,037
1971	7.19							\$3,740
1974	8.13	9.09						\$4,855
1975	8.25	9.06	8.98					\$5,744
1978	8.66	9.30	9.45	9.61				\$6,968
1981	8.94	9.47	9.63	9.74	9.88			\$9,243
1985	8.34	8.59	8.46	8.41	7.90	6.43		\$11,861
1988	7.98	8.13	7.92	7.84	7.31	6.24	5.97	\$14,116

Source: 1990 Economic Report of the President

Table 3 is similar to Table 1, but instead of first class stamp prices, Table 3 provides information on US per capita disposable income. With few exceptions, the annual percentage growth in disposable income usually exceed the corresponding

of first class stamps rose 30 percent from 1974 to 1975; in contrast per capita disposable income rose 8.98 percent during the same period. Thus the -21.02 percent entry at the intersection of the 1975 row and 1974 column in Table 4 indicates

The idea of missions and strategies is age-old. The Chinese classic, *The Art of War*, written around 500 B.C., focused on military strategy. Introduced to the West only shortly before the French Revolution, its ideas have found their way into modern business strategy. In fact, the notions of strategies are now central to developing successful businesses as such academic business strategists as Michael Porter testify.¹

Businesses and the military utilize strategy by asking and answering versions of the same four generic questions. For a company these include:

1. Where are we now? Assessment of the current competitive environment and a company's position in that environment relative to its customers, competitors, and suppliers.
2. Where do we want to go and when? The process of defining a company's mission and time frame.
3. How do we get from the first answer to the second? This is the strategy.
4. Can we do it? The iterative process of deciding if available resources and responses of customers and competitors allow achievement of the mission.

In today's business environment each question is difficult to answer, and answers must constantly be reevaluated as the business environment changes. Some companies may deny going through this iterative process but whether it is a company, an individual making a life plan, a general thinking about positioning his troops, or governmental institutions planning for the future, the same questions tend to be asked and answered.

One exception seems to be the Federal Reserve, which appears to behave in a reactive manner rather than a strategic one when attempting to achieve its goal of price stability. Recent events suggest that perhaps the Federal Reserve may be slowly moving toward the idea of a mission.

Record

Data on price levels suggest that price stability, as a mission, has only been given lip service by the Federal Reserve. For instance, inflation, as measured by the implicit price deflator, averaged 2.4 percent, 2.6 percent, and 6.5 percent, respectively, in the 1950s, 1960s, and 1970s. From 1980 through 1988 inflation averaged 4.0 percent. A 4.0 percent annual inflation rate implies the price level increases by nearly 50 percent every ten years.

In its battle against inflation, the Federal Reserve took a nonstrategic approach. It reacted to changes in the economic environment. Instead of asking and answering the four questions outlined here, the Federal Reserve took the approach characterized by William McChesney Martin, Jr., Chairman of the Federal Reserve from 1951 to 1970, as "leaning against the wind."

"Leaning against the wind" is nonstrategic and, in a sense, passive, as it allows the economic environment to determine monetary policy. Being strategic would imply utilizing monetary policy to determine the economic environment; in particular, monetary policy could create an economic future characterized by price stability.

Inflation numbers, then, suggest that the Federal Reserve is not on a price stability mission if price

stability is defined as the elimination of long-term inflation. People at the Federal Reserve, past and present, all say that the Federal Reserve does not follow or have a price-stability mission.

People

Lawrence K. Roos, president of the Federal Reserve Bank of St. Louis from 1976 to 1983, a period covering portions of the Burns and Volcker regimes, provides this perspective in the Winter 1986 *Cato Journal*.

There are no clear, achievable goals promulgated by monetary policymakers. Never once in my participation in meetings of the Federal Open Market Committee [FOMC] do I recall any discussion of long-range goals of economic growth or desired price levels. It was like trying to construct a house without agreeing upon an architectural design. Instead of seeking a few achievable goals, the Federal Reserve is supposed to solve all sorts of problems, including inflation, unemployment, lagging real output growth, high interest rates, balance of payments disequilibrium, volatile exchange rates, depressed stock prices, a sagging housing industry, and the world debt crises. Now, asking monetary policymakers to do all this is sheer nonsense.

Roos continues:

I do not think that the leaders and the staff of the Federal Reserve actually feel that money growth can be controlled, even over a one- or two-year period. I can tell you without violating any confidences that more than once when we met, when the

money growth M1 figure was disclosed since the previous FOMC meeting, someone would say that we lucked out this time. There is not a serious belief that this machine can be guided by controlling money. Indeed, I do not believe that the control of money growth ever became the primary priority of the Fed. I think that there was always and still is a preoccupation with stabilization of interest rates.

W. Lee Hoskins, the current president of the Cleveland Federal Reserve Bank and rotating voting member of the Federal Reserve Open Market Committee, provides a perspective very similar to that of Mr. Roos in the November 1987, April 1988, and February 1989 Cleveland Federal Reserve Bank Economic Commentaries.

November 1987—Clarifying objectives and obtaining support for pursuing them should be the order of the day for policymakers. Stating goals and setting priorities for the monetary policy process would be a very useful step. It would promote discussion of these goals and assist in the formulation of a broader consensus on the primary responsibility of monetary policy....

I [Hoskins] believe that a more forthcoming statement of monetary policy objectives can make a material contribution to reducing market uncertainty by making an inflation-free environment our primary goal, and also by specifying a time path, perhaps three to five years, over which we will achieve it.

April 1988—The basic objective of monetary policy should be to stabilize the price level.... When central banks lose credibility by failing to commit to a zero-inflation objective and following through with credible actions to achieve it, they create uncertainty.... When central banks stabilize price levels, they create a healthy environment for private

decision-making and resource allocation.

February 1989—The Federal Reserve's monetary policy can best promote an efficient economic system by establishing a stable price level environment.... But a 4 to 5 percent inflation rate means that the overall price level increased by 30 percent during the last six years.... I am deeply disappointed by this performance.... I am far more interested in providing some information that is not public--indeed, that does not really exist.... I [Hoskins] sense that something even more valuable is missing: a clear message about the Federal Reserve's inflation goals, stated in a way that the public can actually use for its own decisions.

Hoskins and Roos both seem to be saying that the Federal Reserve operates without a mission--no goal, no road map for going anywhere, and no timetable.

What is the significance of the Federal Reserve operating without a mission? Take a business entity without a mission and strategy and compare it to a goal-directed business. Most people would sooner bet the ranch on a company with a mission and strategy, because such a company is more likely to perform better.

The same is true for the Federal Reserve. One might expect better performance (performance measured by changes in the price level) from a central bank with a mission and strategy for achieving that end.

Mission

Perhaps the real mission of the Federal Reserve ought to be to provide a stable economic environment for business and consumer sectors of the economy. Movement toward that end can be accomplished by the Federal Reserve clearly defining its monetary strategy. With a well-defined strategy and timetable for implementation,

uncertainty is reduced for business and consumers. Hoskins is pushing for that clear statement about the Fed's inflation goal in order to reduce uncertainty and have a stable economic environment. He wants the Federal Reserve to define as its mission the elimination of long-term inflation. And he may have found a listener and supporter for that mission--Federal Reserve Chairman Alan Greenspan.

Chairman Greenspan in a March 14, 1989 response to a question from the Senate Committee on Banking, Housing, and Urban Affairs, wrote,

I have emphasized the importance of reducing the rate of inflation to a level at which it no longer has economic significance--that is, one so low that people no longer feel the need to make any allowance for inflation in their decisions about purchasing real or financial assets. I am not sure what, in terms of our conventional price indexes, that translates into quantitatively, but I think we must at this point take as our working assumption that it is a number approximating zero. As to a timetable, it is clear that we cannot achieve price stability overnight without undue wrenching of the economy; however, if we do not have at least a rough sense that we want to achieve this objective within several years, it will lose operational significance and have little, if any, of the favorable expectational effect that it might otherwise have.

Chairman Greenspan provided an approximate answer to the second of the four generic strategy questions; Where do we want to go and when? Greenspan knows the answer to the first question: Where are we now? So he has taken a major strategic step forward compared with past chairmen by specifying a mission.

What would an inflation-free environment mean? Hoskins

stresses the reduction of the uncertainty caused by the misallocation of resources associated with variable interest rates. Inflation causes a host of problems, including economic distortions of the existing tax system as taxes on the return to capital are not adjusted for inflation, misallocation of capital across sectors of the economy, and understatement of depreciation expense during inflationary periods.

Other obvious benefits of an inflation-free environment include significantly lower interest rates. Longer-term treasury bonds, for example, would likely fall to 5 percent (see Greenspan's March 14 letter). Zero inflation, using the past-10-year real average interest rate, implies nominal long-term treasury bond interest rates at 5 percent or less. Achieving price stability suggests sizable price appreciation for current bondholders.

The cost of capital for businesses would decline dramatically suggesting higher levels of investment, leading to higher levels of productivity and output. Higher productivity would greatly assist in maintaining an inflation-free envi-

ronment and improving American global business competitiveness.

The present value of future earnings would also be worth more in an environment of sharply lower interest rates implying significantly higher stock market valuations. In addition, mortgage interest rates would be lower, suggesting more affordable housing. The benefits of price stability are many.

Problems

The problems for the Federal Reserve, however, center on questions three and four: How do we get from where we are now to zero inflation, and can we do it? These problems are extremely difficult for the Federal Reserve to attempt to solve because of the relationship among the national economic goals of price stability, high employment, and economic growth, as well as the role of the US economy in the global economy.

Historically, to slow or reduce the price level, the Federal Reserve has created—through slower money growth and higher interest rates—a slowdown in economic growth. Achievement of price

reduction has, therefore, in the short run, been in conflict with achievement of high employment and economic growth. The 1981–1982 recession, engineered by the Federal Reserve, was successful in reducing the inflation rate from double digits, as measured by the consumer price index in 1979 and 1980, to an inflation rate of 3.8 percent in 1982. But the cost was very slow economic growth in 1980, negative growth in 1981, and an unemployment rate averaging 10.4 percent by the first quarter of 1983.

The Federal Reserve's answer to question three (How do we get to zero inflation?) is likely to be the creation of a prolonged period of slow economic growth.

Reducing inflation from current levels by use of monetary policy is likely to have sizeable short-term costs. The Federal Reserve has to weigh those against the longer-term benefits of price stability in developing an answer to question four: Can we do it? Perhaps the question for the Federal Reserve should be: Can we afford the necessary economic and political costs?

News from BEBR

Several publications designed to bring current economic information to our readers are available from the Bureau of Economic and Business Research. These publications are described below and can be ordered directly from the Bureau using the order form at the bottom of this page.

Illinois Statistical Abstract

The *Illinois Statistical Abstract* is the most comprehensive, up-to-date, single source reference for economic and demographic statistical data for Illinois available anywhere. The 1990 edition, available this fall, will feature several new sections including state geography, education, public utilities, imports, and exports. This is in addition to the 357 tables updated from the very popular 1989 edition.

The *Abstract* contains the most current Illinois data available for the following topics:

- Personal Income & Non-Farm Earnings
- Farm Income
- Transfer Payments
- Employment
 - By Industry
 - Labor Force Statistics
 - Weekly Earnings & Weekly Hours
- Gross State Product
- Census of Manufactures
- Census of Services
- Census of Population and Housing
- Building Permits
- Consumer Price Indexes & Inflation Rates
- Commercial Banking Statistics
- General Revenue Fund Tax Receipts
- Estimated Retail Sales

Auditing Research Symposium

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Illinois Business Statistics

Total personal income in Illinois grew 7.3 percent in 1989, roughly in line with the national increase. Because of Illinois' relatively lower rate of inflation, real income grew somewhat more rapidly than nationally. The Illinois Econometric Model (IEM) forecasts of personal income emerge in part from predictions of future hourly rates of compensation and of hours

to be worked. For job categories studied, we predict 1991 hourly wages for construction workers and miners will be the highest (\$19.57 and \$18.18, respectively) (Chart 1). Fabricated metals workers will earn the median hourly wage (\$11.39); leather products workers will earn the least, \$7.06.

Of categories estimated by IEM, the construction workweek was

among the shortest at 38.7 hours per week on average. In fact, only textile mill workers can expect a shorter average workweek.

The prospect of continued moderate growth in personal income plus the state's ability to create new jobs (a record 5,772,000 persons were employed in April 1990) indicate an overall favorable economic prediction for the state.

Forecast Statistics

Personal Income (millions of dollars, seasonally adjusted at annual rates)

	1989	1990:I*	1990:II	1990:III	1990:IV	1991:I	1991:II	1991:III	1991:IV	1992:I
Total personal income	\$219,838	\$231,305	\$234,817	\$238,926	\$242,831	\$247,502	\$251,567	\$256,184	\$260,472	\$265,559
Total nonfarm	160,067	167,604	170,368	173,048	176,029	178,903	182,059	185,163	188,420	191,592
Total private nonfarm	140,010	146,429	148,864	151,262	153,837	156,393	159,203	161,994	164,826	167,668
Mining	947	976	1,031	1,032	1,025	1,020	1,024	1,021	1,019	1,016
Construction	9,597	10,029	10,216	10,369	10,531	10,722	10,883	11,061	11,259	11,489
Manufacturing	33,921	35,592	35,905	36,274	36,590	36,955	37,403	37,864	38,261	38,669
Durable	21,266	22,390	22,565	22,791	22,976	23,199	23,489	23,798	24,050	24,306
Transportation & public utilities	12,656	13,202	13,341	13,483	13,614	13,756	13,914	14,066	14,210	14,363
Wholesale trade	11,721	12,186	12,412	12,575	12,753	12,916	13,105	13,277	13,442	13,611
Retail trade	13,396	13,776	14,009	14,219	14,438	14,663	14,895	15,131	15,348	15,583
Finance, insurance, & real estate	14,285	14,615	14,713	14,827	15,074	15,188	15,423	15,586	15,802	15,924
Services	13,813	14,822	15,104	15,403	15,727	16,062	16,400	16,749	17,118	17,498
Government	41,618	44,439	45,473	46,563	47,699	48,867	50,071	51,305	52,577	53,877
	20,057	21,175	21,504	21,786	22,192	22,510	22,856	23,168	23,595	23,924

Gross State Product (millions of dollars, seasonally adjusted at annual rates)

	1989	1990:I*	1990:II	1990:III	1990:IV	1991:I	1991:II	1991:III	1991:IV	1992:I
Total	\$236,153	\$272,228	\$275,866	\$280,301	\$284,745	\$289,366	\$294,031	\$299,048	\$304,114	\$309,033
Total private nonagric.	230,736	243,333	246,663	250,745	254,826	259,082	263,377	267,999	272,672	277,200
Mining	1,609	1,325	1,364	1,312	1,270	1,233	1,216	1,184	1,155	1,130
Construction	10,921	11,274	11,443	11,652	11,892	12,031	12,201	12,415	12,667	12,814
Manufacturing	49,946	53,502	53,948	54,520	55,015	55,583	56,218	56,889	57,510	58,101
Durable	27,836	29,880	30,082	30,365	30,580	30,844	31,191	31,566	31,871	32,174
Nondurable	22,109	23,622	23,866	24,156	24,435	24,738	25,027	25,323	25,638	25,928
Transportation & public utilities	25,787	26,762	27,015	27,587	27,948	28,487	28,954	29,503	30,086	30,487
Wholesale trade	22,646	23,187	23,431	23,731	24,092	24,431	24,781	25,135	25,510	25,881
Retail trade	23,471	24,636	25,038	25,490	25,895	26,342	26,740	27,196	27,626	28,087
Finance, insurance & real estate	47,103	50,061	50,700	51,394	52,339	53,310	54,242	55,185	56,227	57,326
Services	49,234	52,586	53,724	55,060	56,375	57,665	59,026	60,482	61,922	63,374
Government	23,286	24,217	24,670	24,948	25,293	25,530	26,036	26,334	26,694	26,983
Agriculture	4,131	4,678	4,534	4,608	4,626	4,754	4,619	4,714	4,749	4,850

*Forecast begins

Illinois Employment Forecast (in thousands, seasonally adjusted at annual rates)

	1989	1990:I	1990:II*	1990:III	1990:IV	1991:I	1991:II	1991:III	1991:IV	1992:I
Total nonfarm employment	5,179.2	5,209.8	5,214.4	5,217.3	5,229.9	5,246.6	5,241.1	5,248.2	5,254.7	5,274.3
Total private nonfarm emp.	4,441.5	4,466.0	4,468.9	4,469.7	4,481.7	4,499.2	4,494.0	4,493.9	4,502.8	4,526.6
Mining	19.9	19.8	20.1	19.8	19.7	20.4	19.5	19.2	19.3	20.0
Construction	209.7	215.8	214.2	214.0	213.8	217.2	214.0	211.9	210.9	216.9
Manufacturing	981.5	978.7	971.4	968.8	964.9	962.8	961.3	961.3	960.0	959.2
Durable	598.3	595.8	591.1	589.7	587.1	585.5	584.8	585.4	584.6	584.0
Primary Metals	56.3	56.0	54.6	54.1	53.6	52.9	52.6	52.7	52.5	52.0
Fabricated Metals	107.2	106.0	104.6	104.4	103.8	103.3	102.6	102.2	101.7	101.1
Nonelectrical Machinery	154.2	153.4	154.5	155.1	155.1	155.1	156.4	156.0	156.7	159.3
Electrical Machinery	118.3	117.9	118.2	118.0	117.8	117.8	117.9	118.2	118.5	118.9
Non-durable	383.2	382.8	380.4	379.0	377.8	377.3	376.5	375.8	375.4	375.2
Food & kindred products	90.2	90.0	89.5	88.9	88.8	88.5	87.6	86.7	86.7	86.7
Printing & publishing	112.8	112.6	112.2	111.9	111.2	111.3	111.4	111.4	110.8	110.7
Chemical & allied products	61.1	61.5	61.4	61.4	61.3	61.0	60.9	61.0	61.0	60.8
Transportation & pub. utilities	304.5	306.2	306.7	306.5	306.2	306.8	306.3	306.4	305.8	306.4
Wholesale trade	374.1	375.7	374.2	373.6	373.0	376.6	376.0	375.4	376.5	378.0
Retail trade	900.7	904.7	906.4	903.6	907.4	909.3	909.9	909.0	908.7	911.0
Finance, ins. & real estate	372.4	373.7	375.7	377.5	380.1	381.9	381.4	381.3	383.0	384.7
Services	1,278.9	1,291.5	1,300.1	1,305.9	1,314.5	1,324.2	1,325.6	1,329.4	1,338.5	1,350.4
Government	737.7	743.8	745.5	747.7	748.2	747.4	747.1	754.2	752.0	747.6

*Forecast begins.

Chart 1. Forecast of Average Hourly Wages for 1991

Hourly Wage

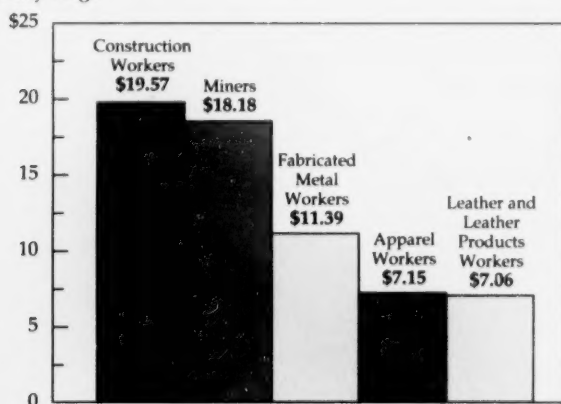
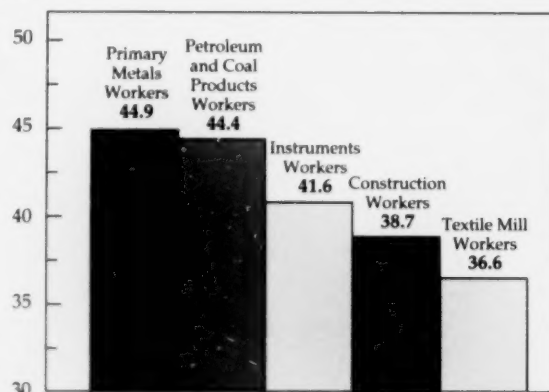


Chart 2. Forecast of the Number of Hours Worked per Week for 1991

Weekly Hours



Historical Statistics

	% Change April 1989 April 1990	Apr. 1990	Mar. 1990	Feb. 1990	Jan. 1990	Dec. 1989	Nov. 1989	Apr. 1989
Building Permits								
Residential housing units	-33.16	2,702	2,679	2,539	2,643	2,482	2,488	4,000
Value of residential units	-8.99	\$346,504	\$317,339	\$236,868	\$223,757	\$194,504	\$202,488	\$666,708
Value of nonresidential housing								
Industrial buildings	-9.38	\$18,542	\$18,396	\$12,119	\$28,819	\$84,323	\$98,689	\$130,000
Office, banks, and professional buildings	-77.22	\$21,268	\$35,825	\$25,619	\$31,630	\$19,817	\$30,381	\$130,300
Stores and other mercantile buildings	-38.12	\$27,770	\$54,284	\$28,440	\$37,404	\$78,091	\$82,889	\$88,700
Other	-19.68	\$5,388	\$4,369	\$3,390	\$4,468	\$2,384	\$7,688	\$7,381
Construction price index								
North Central US	4.14	125.6	125.5	124.9	124.8	123.3	123.2	122.0
North Central US, more than 1,200,000	4.45	127.5	126.9	126.4	125.7	124.5	124.4	123.0
North Central US, 500,000-1,200,000	3.48	124.8	124.7	124.4	124.2	123.0	123.0	120.0
North Central US, 25,000 to 500,000	3.63	125.6	125.3	124.5	124.6	123.2	123.3	122.3
North Central US, less than 25,000	4.13	121.1	120.8	119.8	120.0	118.8	119.6	116.3
Chicago	5.16	130.4	129.5	129.2	128.1	126.5	126.7	126
All Cities								

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